Phase 2
RCRA Facility Investigation
for
Site 7- Fuel Depot Area

Naval Weapons
Industrial Reserve Plant
Calverton, New York

Northern Division
Naval Facilities Engineering Command
Contract Number N62472-90-D-1298
Contract Task Order 0270

January 2000

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PHASE 2 RCRA FACILITY INVESTIGATION
FOR
SITE 7 – FUEL DEPOT AREA

NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
CALVERTON, NEW YORK

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
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Submitted by:
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LIST OF ACRONYMS AND ABBREVIATIONS

ARARs	applicable or relevant and appropriate requirements
bgs	below ground surface
bwt	below water table
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFB	CF Braun
CFR	Code of Federal Regulations
CLEAN	Comprehensive Long-term Environmental Action Navy
CLP	Contract Laboratory Program
CMS	Corrective Measure Study
COCs	chemicals of concern
CRDLs	contract-required detection limits
CSFs	Cancer Slope Factors
CTO	Contract Task Order
DO	dissolved oxygen
DOH	Department of Health (New York)
EPA	U.S. Environmental Protection Agency
EVS	Environmental Visualization System
FS	Feasibility Study
ft/day	foot or feet per day
ft/min	foot or feet per minute
GC	gas chromatography
GOCO	government-owned, contractor-operated
HI	hazard index
HQ	hazard quotient
HNUS	Halliburton NUS Corporation
IAS	Initial Assessment Study
ICR	incremental cancer risk
IRP	Installation Restoration Program (Navy)
KOCs	organic carbon partitioning coefficients
MCLs	Maximum Contaminant Levels (EPA's)
µg/kg	microgram per kilogram
µg/L	microgram per liter
mg/kg	milligram per kilogram
MPC	Marine Pollution Control
msl	mean sea level

NAVFAC	Naval Facilities Engineering Command
Navy	U.S. Department of the Navy
NEESA	Naval Energy and Environmental Activity
NTU	nephelometric turbidity unit
NWIRP	Naval Weapons Industrial Reserve Plant
NYSDEC	New York State Department of Environmental Conservation
PA	Preliminary Assessment
PAHs	polynuclear aromatic hydrocarbons
PCBs	polychlorinated biphenyls
QA	quality assurance
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RGH	Rogers, Golden, & Halpein
RI	Remedial Investigation
RPDs	relative percent differences
SI	Site Investigation
SOPs	standard operating procedures
STARS	Spill Technology And Remediation Series
SVOCs	semi-volatile organic compounds
TAGM	Technical and Administrative Guidance Memorandum
TAL	Target Analyte List
TBCs	to-be-considered
TCL	Target Compound List
TIC	tentatively identified compound
TtNUS	Tetra Tech NUS, Inc.
USCOE	U.S. Corps of Engineers
USDOI	U.S. Department of the Interior
USGS	U.S. Geological Survey
UST	underground storage tank
VOCs	volatile organic compounds

1.0 INTRODUCTION

1.1 PURPOSE

The Northern Division of the Naval Facilities Engineering Command (NAVFAC) has issued Contract Task Order (CTO) 0270 to Tetra Tech NUS, Inc. (TtNUS) under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract N62472-90-D-1298 to perform a Phase 2 Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) for Site 7 - Fuel Depot Area at the Naval Weapons Industrial Reserve Plant (NWIRP), located in Calverton, New York.

This work is part of the Navy's Installation Restoration (IR) Program, which is designed to identify contamination of Navy and Marine Corps lands/facilities resulting from past operations and to institute corrective measures, as needed. There are typically four distinct stages. Stage 1 is the Preliminary Assessment (PA), which was formerly known as the Initial Assessment Study (IAS). Stage 2 is a RCRA Facility Assessment -Sampling Visit (RFA), which is also referred to as a Site Investigation (SI), which augments the information collected in the Preliminary Assessment. Stage 3 is the RCRA Facility Investigation/Corrective Measures Study (RFI/CMS) (also referred to as a Remedial Investigation/Feasibility Study [RI/FS]), which characterizes the contamination at a facility and develops options for remediation of the site. Stage 4 is the Corrective Action, which results in the control or cleanup of contamination at sites. This report has been prepared under Stage 3 and serves as a supplemental report to the RFI report and Addendum for NWIRP Calverton, New York, (Halliburton NUS [HNUS], 1995a; HNUS, 1995b).

This report specifically addresses Site 7, the Fuel Depot Area. Data from the Site 10A - Jet Fuel Systems Laboratory investigation area is also included as relevant. Based on test results presented in this and previous reports (See Section 1.4), the nature and extent of contamination at this site have been adequately characterized. Therefore, the remediation process can proceed to the CMS step. Additional data collection would be conducted during the Corrective Measure Study and Corrective Action stages, as required.

In addition to Site 7, Phase 2 RFI testing is continuing at several other RFI sites. The results from the investigation at the other sites will be presented in supplemental Phase 2 RFI reports.

This RFI was conducted in accordance with the requirements of the New York State RCRA Hazardous Waste Permit for the facility (New York State Department of Environmental Conservation [NYSDEC] 1-4730-00013/00001-0), dated March 25, 1992. The NYSDEC is the lead oversight agency. This work was also conducted in accordance with the requirements of the United States Environmental Protection

Agency (EPA) facility permit (EPA ID Number NYD003995198), dated May 11, 1992. The EPA supports NYSDEC in its oversight activities. The requirements of both permits appear to be the same, although the terminology and format vary.

1.2 FACILITY LOCATION

The site involved in this study is located within the confines of NWIRP Calverton, Suffolk County, New York, (see Figure 1-1 and Figure 1-2). NWIRP Calverton is located on Long Island approximately 70 miles east of New York City. The facility is located within the municipality of Riverhead.

Prior to 1996, NWIRP Calverton was a government-owned contractor-operated (GOCO) facility which was operated by the Northrop Grumman Corporation. The facility had an overall area of approximately 6,000 acres, of which 3,000 acres lie entirely within a fenced-in boundary. The majority of the industrial activity was confined to the south central portion of this fenced-in area.

Currently, NWIRP Calverton consists of four separate parcels of land totaling approximately 358 acres. Eight Navy IR sites are included within these parcels as follows. The location of the parcels and sites are presented in Figure 1-2.

Parcel A (32 acres)

Site 2 - Fire Training Area

Parcel B1 (40 acres)

Site 6A - Fuel Calibration Area

Site 10B - Engine Test House

Parcel B2 (131 acres)

Southern Area

Parcel C (10 acres)

Site 7 - Fuel Depot

Site 10A - Jet Fuel Systems Laboratory

Parcel D (145 acres)

Site 1- Northeast Pond Disposal Area

Site 9 - ECM Area

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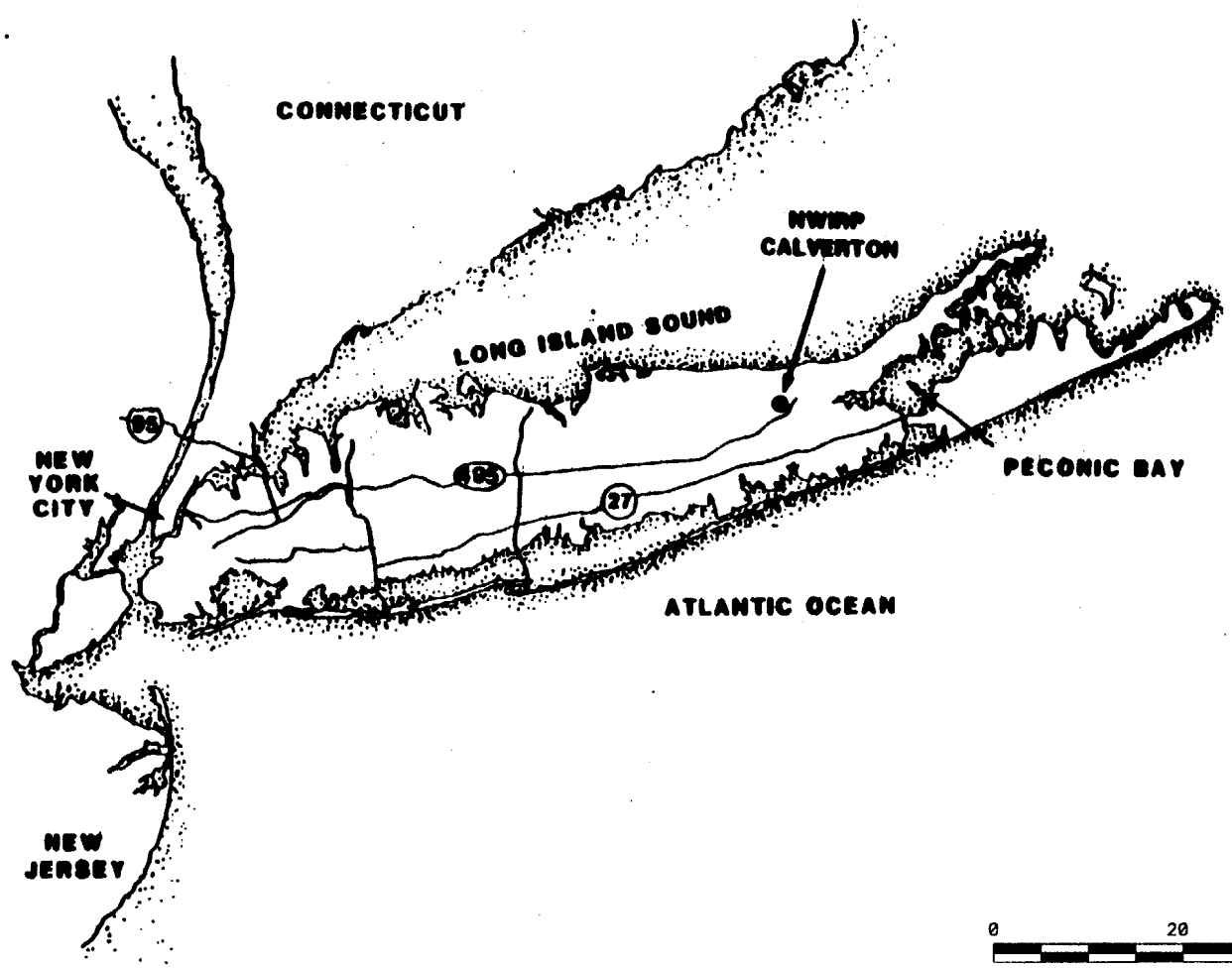

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COST/SCHED-AREA		APPROVED BY DATE	
SCALE AS NOTED		DRAWING NO. FIGURE 1-1	REV. 0

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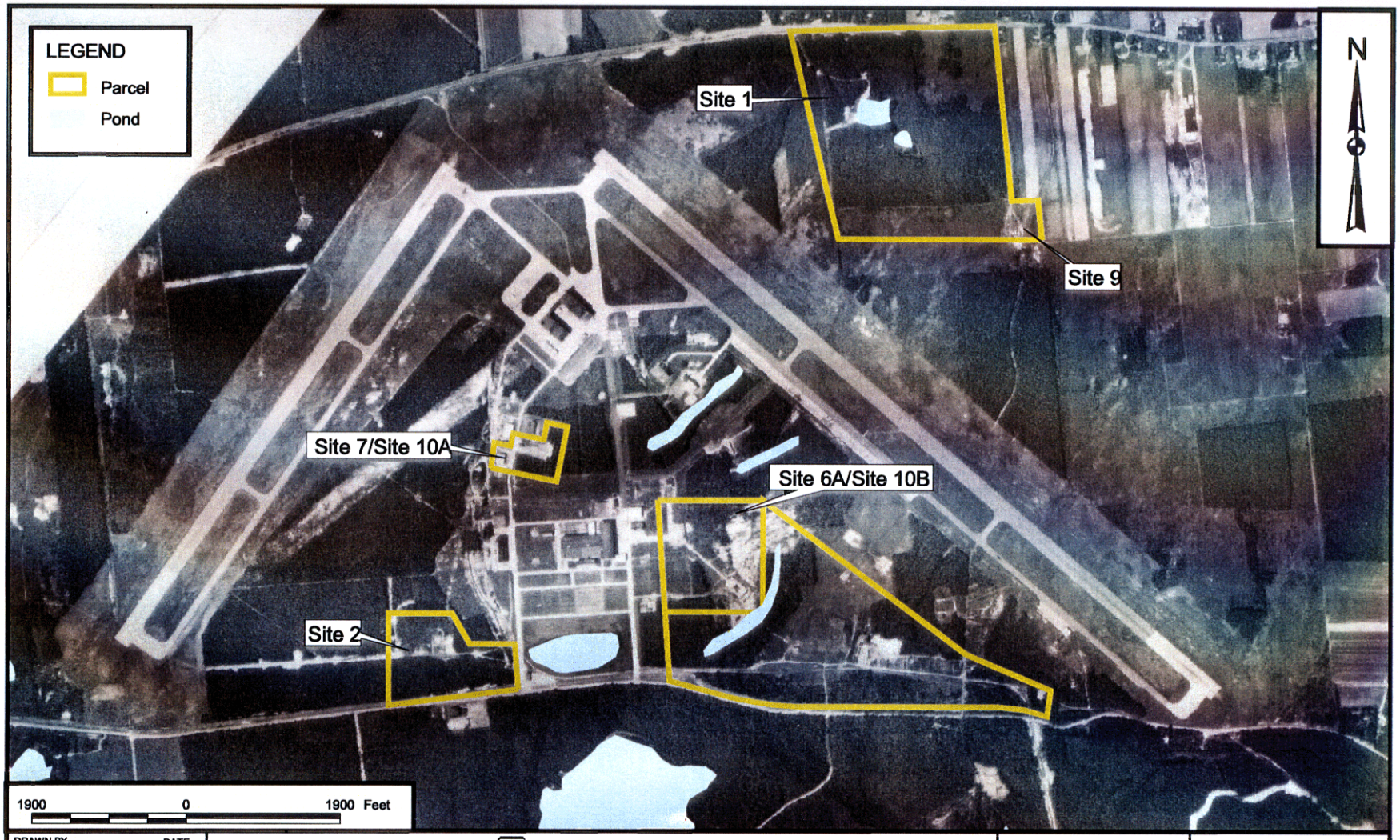

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1.3 FACILITY HISTORY

NWIRP Calverton has been owned by the U.S. Department of the Navy (Navy) since the early 1950's, at which time the land was purchased from a number of private owners. The facility was expanded in 1958 through additional purchases of privately-owned land. Northrop Grumman Corporation (previously Grumman Corporation) leased the land and was the sole operator of the facility from its construction until February 1996. In 1996, the land was returned to the Navy.

In September 1998, the majority of the land within the developed section of the facility was transferred to the Town of Riverhead for redevelopment. Because of the need for additional environmental investigation and the potential need for remediation, the Navy retained four parcels of land within the developed section. The four parcels and associated Navy IR Sites are presented on Figure 1-2.

Approximately 3000 acres of undeveloped land outside of the fenced area was transferred to the Veterans Administration and the New York State Department of Environmental Conservation (NYSDEC) in 1999.

NWIRP Calverton was constructed in the early 1950's for use in the development, assembly, testing, refitting, and retrofitting of Naval combat aircraft. The facility supported aircraft design and production at the Northrop Grumman's Bethpage facility, which is located in Nassau County, New York.

The majority of industrial activity at the facility was confined to the developed area in the center and south center of the facility, between the two runways. Industrial activities at the facility were related to the manufacturing and assembly of aircraft and aircraft components. Operations which resulted in hazardous waste generation included but were not limited to metal finishing processes, such as metal cleaning and electroplating, other maintenance operations, temporary storage of hazardous waste, fueling operations, and various training operations. The painting of aircraft and components resulted in additional waste generation.

1.4 SURFACE WATER HYDROLOGY

The majority of the NWIRP Calverton is located within the Peconic River drainage basin. The eastward-flowing Peconic River is located approximately 1,300 feet south of the facility at its closest point. The Peconic River discharges to Peconic Bay located 8.5 stream miles from the facility.

Surface water hydrology is illustrated on Figure 1-3. Major surface water features near the facility include McKay Lake and Northeast Pond (see Figure 1-2). McKay Lake is a man-made groundwater recharge basin located north of River Road, midway along the southern site border. Northeast Pond is located at

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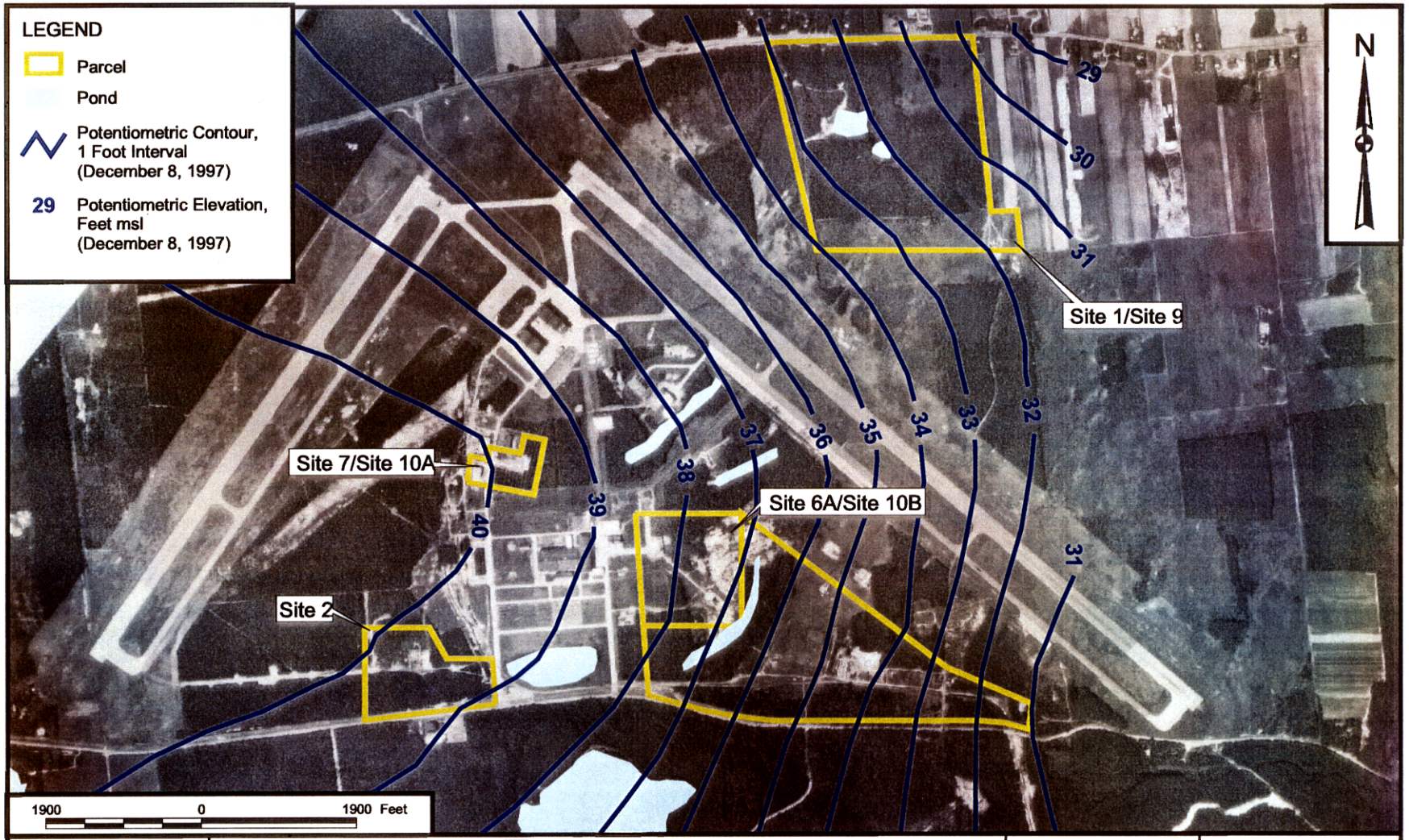

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COST/SCHEDULE-AREA			APPROVED BY: — / DATE: —
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the northeast corner of the facility. Several small drainage basins exist near the Fuel Calibration Area (Runway Ponds). All of these surface water features are land locked, with the exception of McKay Lake, which has an intermittent discharge to Swan Pond, located 1,500 feet to the south of NWIRP Calverton. Overhead flow from the drainage basins to the Peconic River may also occur periodically.

A number of small wetlands exist on the Calverton facility. The U.S. Department of the Interior (USDOI), Fish and Wildlife Department classifies the western half of the 2-acre Northeast Pond as palustrine, forested/scrub/shrub/emergent wetland. The drainage basins are classified as palustrine, scrub/shrub/emergent wetland (USDOI, 1980).

1.5 HYDROGEOLOGY

The unconsolidated sediments that underlie NWIRP Calverton are generally coarse-grained with high porosities and permeabilities. These factors create aquifers with high yields and transmissivities.

The Upper Glacial Formation, the Magothy Formation, and the Lloyd Sand are the major regional aquifers. The Upper Glacial and Magothy aquifers are of principle importance in Suffolk County because of their proximity to the ground surface. The Raritan Clay of the Raritan Formation has a very low permeability and acts as a regional confining layer that is believed to minimize the local risk of contamination to the underlying Lloyd Sand aquifer (McClymonds and Frank, 1972). The Lloyd Sand has not been extensively developed due to its depth and the abundant water available in the overlying aquifers.

The Upper Glacial aquifer is widely used as a source of groundwater in Suffolk County. The water table beneath the NWIRP Calverton lies within this aquifer. Porosities in excess of 30 percent have been calculated for the Upper Glacial aquifer in adjoining Nassau County. Hydraulic conductivity is estimated at 270 feet per day (ft/day).

The Magothy aquifer is widely used as a source of groundwater in Suffolk County. The most productive units are coarser sand and gravel. The permeability of the Magothy is high and hydraulic conductivity has been calculated in excess of 70 ft/day.

The Upper Glacial and Magothy aquifers are believed to be hydraulically interconnected and to function as a single unconfined aquifer. Logs from on-site monitoring wells, previous hydrogeologic investigations, and geologic mapping indicate that although clay lenses that may create locally confining and/or perched conditions are present in both aquifers, these lenses are not widespread and do not function as regional aquitards (McClymonds and Frank, 1972; Fetter, 1976).

NWIRP Calverton straddles a regional groundwater divide, with groundwater beneath the northern half of the facility flowing to the northeast, with the Long Island Sound as the probable discharge point for groundwater in the shallow aquifer zones. Groundwater beneath the southern half of the facility flows to the southeast and the Peconic River basin is the likely discharge point. Groundwater on the divide, the location of which can fluctuate, flows to the east. Groundwater potentiometric contours are shown on Figure 1-3.

1.6 GENERAL ECOLOGICAL SETTING OF NWIRP CALVERTON

NWIRP Calverton is located in the Long Island Pine Barrens, an area characterized by forests dominated by pitch pine (*Pinus rigida*) and oaks (*Quercus* sp.) growing on course-textured upland soils. Rainfall leaches rapidly through the soils recharging a vast underlying aquifer but creating a dry environment at the surface which predisposes the vegetation to frequent periodic wildfires. Where the frequent fire cycle is intact, the forest is typically dominated by pitch pine with a dense understory of scrub oak (*Quercus ilicifolia*), a shrub oak that rarely grows taller than 20 feet. Pitch pine is thick barked and thus generally resistant to brief fires, and both pitch pine and scrub oak regenerate rapidly following heavier fires (Myers and Gaffney, 1990; Navy, 1986 and1996).

Dominance by taller oaks; especially scarlet oak (*Quercus coccinea*), white oak (*Quercus alba*), and black oak (*Quercus velutina*); increases where the fire cycle has been suppressed by human activity. A successional sequence progressing from a pitch pine-shrub oak forest, to a pitch pine-oak forest (taller oaks), and then to an oak-pitch pine forest (taller oaks) is recognized when fire is excluded (Myers and Gaffney, 1990). Fire has generally been excluded from inside the NWIRP Calverton fence since its establishment in 1952, and most mature forest within the fence cover falls into the pitch pine-oak or oak-pitch pine classifications. Especially in the northern part of the fenced area, where soils are less coarse, much forest cover is dominated by oaks, and pitch pine is only a minor associate.

Also typical of the Long Island Pine Barrens are coastal plain ponds, isolated shallow ponds with fluctuating levels of acidic, tea-colored water. These ponds are typically fringed by emergent wetland communities dominated by various rushes, sedges, and forbs and known to support a variety of rare, threatened, and endangered species (Myers and Gaffney, 1990; Conrad, 1996). The fenced part of NWIRP Calverton contains several coastal plain ponds, including Northeast Pond, Shannon's Pond immediately south of Northeast Pond, North Pond, and three narrow ponds on the edge of the developed area termed the Runway Ponds. Most of these ponds, especially Northeast Pond and the Runway Ponds, have been hydrologically altered by human activity. Also, one man-made lake (McKay Lake) is present in the south central portion of the facility.

1.7 PREVIOUS INVESTIGATIONS

Previous investigations at the site consisted of the following:

- IAS (Navy, 1986)
- SI (HNUS, 1992a)
- Hazard Ranking System Preliminary Scoring and Site Inspection Report Form (HNUS, 1992b)
- RFI (HNUS 1995a)
- RFI Addendum (HNUS 1995b)

This report has been prepared as an addendum to the NWIRP Calverton RFI reports issued in 1995, (HNUS, 1995a; HNUS, 1995b). The RFI reports concluded that additional testing was necessary to confirm nature and extent of contamination at several sites, including Site 7 - Fuel Depot Area. Specific data gaps from the previous work are identified in the site-specific sections of this report.

The Phase 2 RFI testing program was presented in the Phase 2 RCRA Facility Investigation Field Sampling Plan (CFB, 1997) and incorporates comments from the NYSDEC, New York State Department of Health (DOH), The Nature Conservancy, Suffolk County Department of Health Services, and the EPA.

1.8 SUMMARY OF FIELD ACTIVITIES

Field activities conducted during the Phase 2 RFI are summarized as follows. A detailed description of field activities is presented in Section 3.0 of this report.

- Temporary monitoring well installation, with groundwater sampling and volatile organic compounds (VOCs) analysis.
- Permanent monitoring well installation.
- Groundwater sampling, with VOC analysis.

1.9 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) SAMPLES

Environmental samples were analyzed by Volumetric (48-hour turnaround time; groundwater only for limited VOCs) and Quanterra, Inc. (28-day turnaround; soils and/or groundwater for Target Compound List (TCL) VOCs and TCL semi-volatile organic compounds (SVOCs). Analytical results, analytical methods, and data qualifiers are presented in Appendix A.

The Volumetric data were evaluated based upon trip blank contamination. The findings of the site-wide evaluation are presented below. Because of the limited number of field QA/QC samples and because the

analytical method used was gas chromatography (GC), the data is considered usable only for screening purposes. The following VOCs were detected in trip blanks at the concentrations indicated:

COC No.	Compound	Detected Concentrations (µg/L)	Action Level (µg/L)	Samples Affected
12	1,1-Dichloroethane	2.6	13	None
13	1,1-Dichloroethane	0.74	3.7	None
18	Benzene	0.54	2.7	None
18	Toluene	1.42	14.2	None
18	Ethylbenzene	0.53	2.65	JF-GW 16-20 JF-GW 16-35
19	Chloroform	0.72	3.6	JF-DUP-08

NOTE:
JF designations indicate samples collected at the Jet Fuel System Laboratory. The results of this investigation will be detailed in a subsequent RFI report but will be used in this report as relevant.

The results of this evaluation did not find significant evidence of blank contamination with Volumetric test results for Site 7. On a facility-wide basis, several chemicals were detected in the trip blanks. However, 1,1-dichloroethane, benzene, and toluene were not detected in the samples associated with these trip blanks. Positive results reported for ethylbenzene and chloroform in the samples shown above are at concentrations below the action levels and are considered false positives. Therefore, positive results for these compounds in the affected samples were struck out and qualified as artifacts of contamination, "B".

A more detailed evaluation of the data from Quanterra was conducted. Associated with these sample results are more extensive field QA/QC samples and detailed documentation of laboratory procedures. This data evaluation addresses only samples collected at Site 7 during the Phase 2 RFI. Data evaluation included a review of laboratory and field QC blanks and field duplicate results.

Evaluation of laboratory and field QC blanks was performed to aid in the elimination of false positive results identified as laboratory or field artifacts. Acetone was detected in a field ambient blank (labeled as a "field poured trip blank" on the chain-of-custody). However, acetone was not detected in any of the associated field samples. No other TCL VOCs, TCL SVOCs, or TCL pesticides/PCBs were detected in any of the laboratory or field QC blanks associated with Site 7. However, it is likely that the detection of diethylphthalate reported for a groundwater sample is a false positive. This chemical is a plasticizer used in gloves and other sample and analysis equipment and is commonly found in blanks.

The semivolatile tentatively identified compounds (TICs) detected in Fuel Depot soil samples FDT2SB02, FST2SB03, FDT2SB05, FDT3SB01, FDT3SB02, and FDT3SB04 were also detected in the laboratory

method blanks associated with these samples. Therefore, based on EPA Region II data validation guidelines, TICs have been reported as not detected in these samples on the tables included in Section 2.

Field duplicate samples were collected for soil samples. Field duplicate precision was evaluated by determining the relative percent differences (RPDs) between field duplicate results. The criteria used for evaluation were limits of 30% RPD for water samples and 50% RPD for sediment samples, with the exception of metals results which were less than two times the Contract Laboratory Program (CLP) Contract Required Detection Limits (CRDLs) used for reporting. In these cases, the criterion was that the difference between field duplicate results was less than the CRDL. Results for benzo(k)fluoranthene and phenanthrene in soil sample FDT1SB02 were qualified as estimated, J, based on field duplicate RPDs which exceeded QC criteria.

2.0 SITE BACKGROUND

2.1 SITE DESCRIPTION AND PHYSICAL SETTING

Site 7 - Fuel Depot Area is located approximately 3,000 feet north of the south gate, near the geographic center of the Calverton facility. Site 7 is located at the eastern side of the road leading from the south gate and is approximately 1.3 acres in area, measuring 150 feet in width and 400 feet in length, as shown on Figure 2-1. The principal features of the fuel depot are a large concrete trucking-parking area covering the southern half of the depot and one underground fuel storage tank area. The former underground storage tank (UST) area is comprised of a 40- by 150-foot area covering the north-central area. The former UST area is primarily gravel covered, with scattered concrete pads surrounding fill and vent pipes. A pump house is located at the western edge of the fuel depot, and a maintenance garage was located at the southeastern corner (U.S. Geological Survey [USGS], 1967; Navy, 1986).

A garage and paved parking area for trucks and equipment formally used by the Northrop Grumman transportation department are located north of Site 7. Areas to the east and south are wooded. A paved roadway leading from the south gate is adjacent to the depot to the west; a storage building and the fuel system laboratory building are located west of the road (USGS, 1967; Navy, 1986). Site 7 is generally level, with a very slight slope to the east (USGS, 1967).

2.2 SITE HISTORY

Site 7 was used for the storage and distribution of fuel products, such as JP-4 and JP-5 jet fuel. Fuels were stored in USTs. Seven tanks, ranging in size from 4,000 to 15,000 gallons, were originally used for storage of jet fuel and gasoline. More recently, three 50,000 gallon tanks stored jet fuel, two 10,000 gallon tanks stored diesel fuel and gasoline, and one 20,000 gallon tank stored gasoline. The 50,000 gallon tanks were removed in August 1997 and the 10,000 and 20,000 gallon tanks were removed in April 1998. One 550 gallon AST, also removed in April 1998, stored JP-4 jet fuel and was located on a concrete pad east of the pump house. As of April 1998, all petroleum storage tanks have been removed. Fuels were transferred from the USTs to trucks for use in the flight preparation areas of the facility. These activities have resulted in groundwater contamination by fuels, which may have occurred due to tank and/or pipe leakage, tank overfilling, and surface spills.

The remedial activities at the fuel depot area to date are limited to the identification of the dissolved product plume and free product removal. A total of 34 monitoring wells were installed by Marine Pollution Control (MPC) in this area, the latest one in May 1989. As of February 1996, approximately 174 gallons of petroleum product have been removed from this site.

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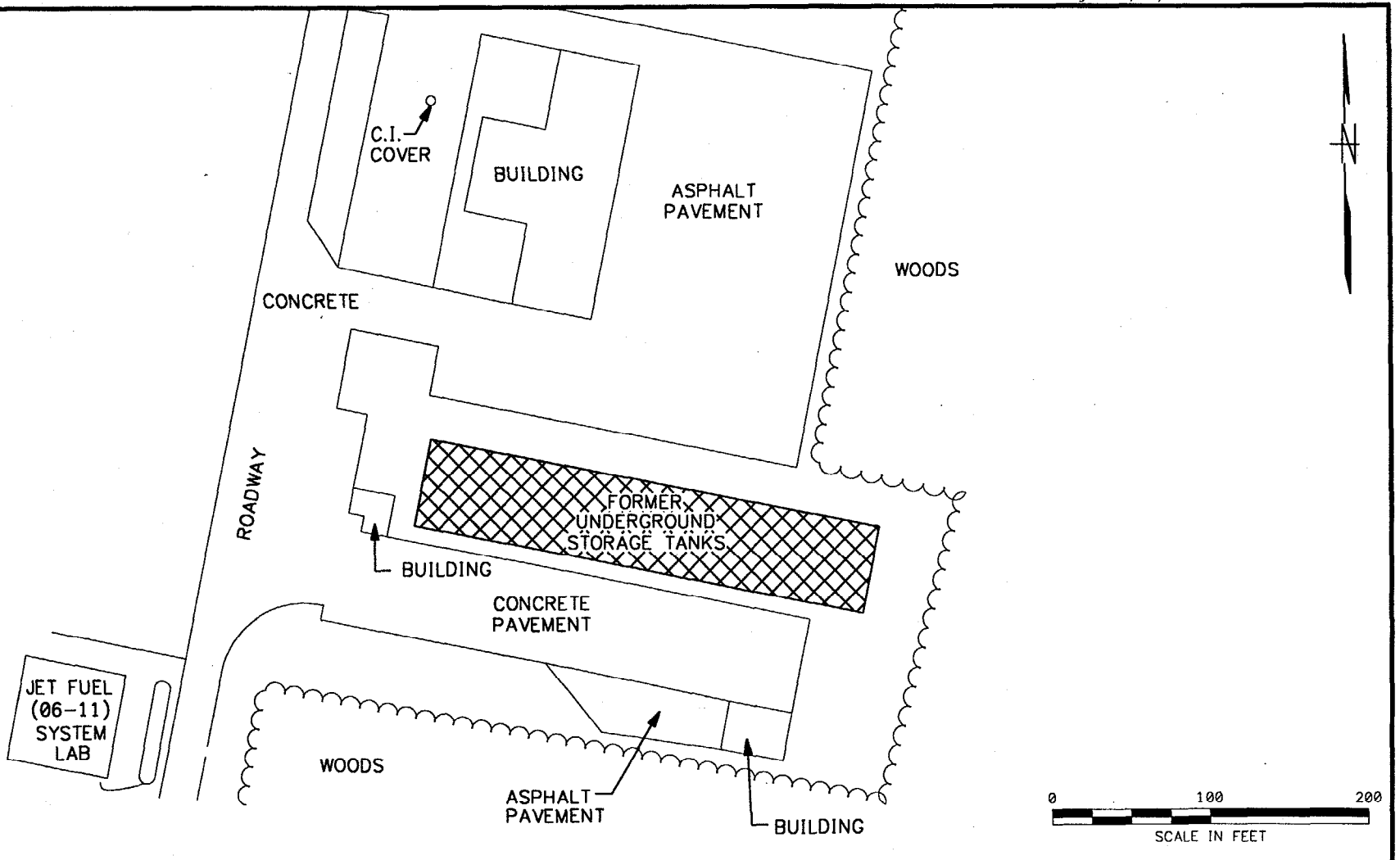

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COST/SCHED-AREA		APPROVED BY DATE	
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2.3 ECOLOGICAL SETTING

2.3.1 Vegetation

All areas within the Site 7 fence are paved or maintained as lawn areas. The fence is bordered to the north and west by more lawn and paved areas and to the south and east by the oak-pine forest typical of course-textured upland soils in the Long Island Pine Barrens. Although the forest comes within 10 feet of the fence to the south, a wider area of grass up to 50 feet in width separates the east fence from the forest. The grassy areas are dominated by upland grasses and weedy forbs such as fescues (*Festuca* sp.), panic grass (*Panicum lanuginosum*), broomsedge (*Andropogon virginicus*), and yellow sweet clover (*Melilotus officinalis*). The forest is dominated by pitch pine (*Pinus rigida*) and oaks (primarily scarlet oak, *Quercus coccinea*), with a dense shrubby understory of early low blueberry (*Vaccineum vacillans*).

2.3.2 Wildlife

The chain link perimeter fence around Site 7 and the absence of natural vegetation inside the fence render all areas inside the fence effectively unavailable and undesirable to terrestrial wildlife. The forest east and south of Site 7 is a small, isolated patch of less than 10 acres that is of little or no value to wildlife favoring large tracts of forest. Its value to wildlife favoring forested edges was minimal while NWIRP Calverton was in active use but may be higher now that human activity has decreased and most lawns are not frequently mowed. Examples of such edge-favoring wildlife include whitetail deer (*Odocoileus virginianus*), northern bobwhite quail (*Colinus virginanus*), eastern kingbird (*Tyrannus tyrannus*), indigo bunting (*Passerina cyanea*), and song sparrow (*Melospiza melodia*) (Kricher, 1988).

2.3.3 Wetlands

There are no areas on or adjoining Site 7 that meet the technical criteria for delineation as wetlands (U.S. Corps of Engineer [USCOE] Environmental Laboratory, 1987). The only natural vegetation on the site comprises ruderal upland grasses and weedy forbs, and the only natural vegetation adjoining the site is a forest of scarlet oak and pitch pine, both typical of uplands.

2.3.4 Aquatic Biota

There are no aquatic habitats, and hence no aquatic biota, on or close to Site 7.

2.3.5 Special Status Species

Records maintained by the NYSDEC Natural Heritage Program do not include any documented sightings of special status species at coordinates on or near Site 7 (Conrad, 1996).

2.4 GEOLOGY

Four soil borings (FD-SB-01 through FD-SB-04), two shallow permanent monitoring wells (FD-MW-05-S and FD-MW-06-S), and four well clusters (FD-MW-01 through FD-MW-04) were installed at Site 7 as part of 1995 RFI activities. The soil borings range in depth from 16 to 17 feet below ground surface (bgs). Each well cluster consisted of a shallow well and an intermediate well. The shallow wells ranged in depth from 23.5 to 26.5 feet bgs and were drilled to approximately 8 feet below the water table. The intermediate wells reached total depths of 80 feet bgs.

Based upon onsite soil borings and wells, the site is underlain by three distinct lithofacies, an upper (A) lithofacies, a middle (B) lithofacies, and a lower (C) lithofacies. The upper lithofacies (A) consists predominantly of orange-brown, brown, and light brown, silty, fine-grained sand with varying amounts of peat and pebbles. The upper lithofacies ranges from 1 to 5 feet thick and was encountered in all soil borings except FD-SB-04 and in all monitoring wells. The upper lithofacies (A) represents a mixture of soil and glacial deposits. The middle lithofacies (B) consists of light brown and tan fine-grained sand with varying amounts of medium-grained sand, pebbles, and clay. The middle lithofacies ranges from 45 to 69 feet thick and was encountered in all soil borings and monitoring wells. One of the monitoring wells, FD-MW-04-I, penetrated an additional 9 feet of micaceous silt. The middle lithofacies (B) probably represents undisturbed glacial deposits. The lower lithofacies (C) consists of brownish-gray, micaceous, silty clay and was encountered in all of the intermediate wells. The lower lithofacies (C) may represent the Magothy Formation.

2.5 HYDROGEOLOGY

Groundwater in the glacial deposits occurs under unconfined conditions. The depth to groundwater, as determined by the 1995 onsite monitoring well program, ranges from 17.39 to 19.49 feet bgs. The elevation of the water tables ranges from 32.55 feet above mean sea level (msl) in FD-MW03-I, the westernmost well, to 32.20 feet above msl in FD-MW01-I, the northernmost well. The direction of groundwater flow is to the east . The hydraulic conductivity calculated for glacial deposits from slug tests ranges from 0.039 feet per minute (ft/min, 56 ft/day) to 0.122 ft/min (176 ft/day) for sediments shallower than 24 feet bgs and from 0.029 ft/min (42 ft/day) to 0.036 ft/min (52 ft/day) for sediments deeper than 41 feet bgs. Groundwater flow is to the east (see Figure 1-3).

2.6 PREVIOUS INVESTIGATIONS

2.6.1 Initial Assessment Study (IAS)

An IAS was performed for the NWIRP Calverton in 1986 (Navy, 1986). This study identified seven potential areas of concern, including Site 7.

2.6.2 Site Investigation (SI)

As a follow-up to the IAS, an SI was conducted at NWIRP Calverton (HNUS, 1992a), which identified seven sites, including Site 7. The sites investigated can be classified as either landfill-type sites or sites resulting from documented or suspected historic spills or leaks of fuels, oils, and/or solvents. Spills have been documented at Site 7. In addition, floating free product has been identified in monitoring wells.

2.6.3 RCRA Field Investigation (RFI)

An RFI was conducted in 1994/1995 (HNUS 1995a). The conclusions from this investigation are summarized as follows:

- VOCs were not detected in the Site 7 soils. Based on the absence of detected VOCs, the source area soils are most likely depleted of VOC contamination. Alternatively, based on the presence of USTs at this site, contaminants could have been introduced directly into the groundwater. A RCRA hazardous waste characteristic evaluation (40 Code of Federal Regulations [CFR] 261) did not result in the classification of site soils as characteristic hazardous waste.

- Polycyclic aromatic hydrocarbons (PAHs) and phthalates were detected at several locations throughout the site. However, only one PAH (benzo(a)pyrene at 0.11 milligrams per kilogram [mg/kg]) at one location exceeded the NYSDEC soil action levels. It should be noted that additional soil testing during the Phase 2 RFI found four PAHs which exceeded NYSDEC soil action levels, including benzo(a)pyrene at 2,200 micrograms per kilogram (µg/kg), as reported in Section 3.3.

- Lead was not detected at concentrations that would be considered greater than background.

- VOCs, including toluene (160 micrograms per liter [µg/L]), ethylbenzene (290 µg/L), and xylenes (2,400 µg/L), were detected in groundwater at concentrations above the NYDEC groundwater quality standards. The New York state standard for most VOCs in groundwater is 5 µg/L. SVOCs, including naphthalene (150 µg/L) and methylnaphthalene (78 µg/L), were also detected at levels exceeding the

EPA Maximum Contaminant Levels (MCLs) and/or the NYSDEC groundwater quality standards. Lead was not detected at a level exceeding Federal or state standards.

- Floating free product has been identified at the site. The location of the free product corresponds to the location of the most contaminated groundwater. Free product recovery was ongoing Grumman operation until 1996.

- The extent of soil contamination is adequately defined.

- The extent of groundwater contamination is characterized in the vertical direction and is mostly characterized in the horizontal direction. The groundwater area requiring additional definition is to the east/northeast of monitoring well MW05. Note that the Phase 2 testing conducted in 1997 completed this delineation, see Section 3.0.

2.6.4 Baseline Human Health Risk Assessment

A baseline human health risk assessment was performed as part of the RFI. According to this assessment, no unacceptable health risks to current workers would be expected. Under a hypothetical future residential land use scenario, unacceptable health risks would be expected from both direct contact with the soils and domestic use of groundwater. The non-carcinogenic hazard index (HI) exceeds the regulatory threshold of 1.0 only for domestic use of groundwater. Calculated incremental cancer risks (ICRs) are approximately 4.7E-06 and 1.0E-06 for soil and groundwater, respectively. The primary chemicals of concern (COCs) for future residents include PAHs, substituted benzene compounds, and naphthalene compounds.

Details of the baseline human health risk assessment are as follows.

2.6.4.1 Risk Characterization Approach

The results of the risk assessment developed during the 1995 RFI (HNUS 1995a) are summarized below. Additional detail is presented in Table 7-14 and Appendix L of the 1995 RFI. The potential receptor evaluated for the current land use scenario is a maintenance worker performing work tasks in the vicinity of Site 7. Surface water bodies do not exist within and do not adjoin Site 7. Therefore, the baseline risk assessment for Site 7 does not include an evaluation of an adolescent receptor potentially exposed to surface waters and sediments. Risks to hypothetical receptors assuming a future residential land use scenario were also evaluated.

2.6.4.2 Current Maintenance Worker Exposure

The total ICR estimate developed for a maintenance worker assuming exposure to contaminants in the soil at Site 7 was 4.7E-07, which is below the 1.0E-04 to 1.0E-06 target risk range used by EPA to determine the need for action at Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and RCRA sites or to formulate standards and criteria (e.g., the Federal Safe Drinking Water Act standards). The HI, which is an indicator of the potential for non-carcinogenic adverse health effects, was calculated as 1.5E-05 for the maintenance worker. Adverse non-carcinogenic health effects are not anticipated when HI is below unity.

2.6.4.3 Future Residential Exposure

The risk assessment conducted assuming a future residential land use scenario considered representative concentrations in soils and groundwater. The total ICR estimate for an adult residential receptor was 5.8E-06, which is within the EPA target risk range of 1.0E-04 to 1.0E-06. In contrast to risk estimates presented for other sites at NWIRP Calverton, the ICR estimate calculated for contaminants in soils (4.7E-06) is higher than that for chemicals in groundwater (1.0E-06). Only the risk estimate for benzo(a)pyrene in soil exceeds 1.0E-06. ICR estimates developed for the other individual chemicals in soil and groundwater do not exceed 1.0E-06. The non-carcinogenic HIs developed for adult and child receptors assuming a future residential land use scenario were 0.72 and 2.5, respectively. There is a potential for adverse non-carcinogenic health effects when either the cumulative HI or chemical-specific Hazard Quotients (HQs) exceed unity. Cumulative HIs developed for contaminants detected in soil exceed unity and the HQ developed for the representative concentration of xylene in groundwater also exceeds unity (HQ for total xylenes is 1.57). These results suggest that there is a rather limited potential for adverse noncarcinogenic effects at Site 7 under the conditions specified in the exposure assessment.

2.6.4.4 IEUBK Lead Modeling Results

At Site 7, the initial reported lead results were either from data sets which are not statistically different from background or are rejected because of analytical problems. Consequently, an evaluation of the lead was not performed in the initial report. Additional groundwater samples were collected during the supplemental sampling event in 1995. This data was used to turn the IU/BK model. The model runs are presented in Appendix E for the average (standard) and maximum cases. The target is a value of less than 5%. The Site 7 results were 0.01% and 0.65% under the average and maximum cases, respectively. Therefore, lead is not a significant concern at this site.

2.6.4.5 Qualitative Risk Assessment

The focus of the qualitative risk assessment is to identify regulations, such as applicable or relevant and appropriate requirements (ARARs), and other standards, such as to-be-considered (TBCs), which are exceeded by measured site contaminant levels. The standards which are presented are those which have been developed for the protection of human health. Other criteria, developed for the protection of the environment and ecological receptors, are not considered. Discussion of the qualitative risk assessment is presented on a medium-specific basis.

2.6.4.6 Soil Standards

Although no Federal standards are generally available for evaluating soils in a qualitative manner, NYSDEC has adopted soil criteria which are designed to be protective of the environment (i.e., groundwater). The criteria are identified in Technical and Administrative Guidance Memorandum (TAGM) Number 4046, Determination of Soil Cleanup Objectives and Cleanup Levels, as revised January 26, 1994. TAGM standards for organic compounds are developed to ensure attainment of groundwater standards under an equilibrium partitioning scenario. The numerical soil standard is based on compound-specific organic carbon partitioning coefficients (KOCs) and a default dilution attenuation factor (100 to 1) and soil organic carbon content 1 percent or risk-based concentrations (for soil ingestion). Recommended cleanup objectives are identified on the basis of background (regional or site-specific) and health-based criteria. One reported result for benzo(a)pyrene exceeded the TAGM standard.

2.6.4.7 Groundwater Standards

Analytical results for groundwater were compared to Federal and state MCLs and state groundwater quality standards to identify the location for which standards are exceeded. These standards are exceeded only by a selected group of groundwater chemicals. COCs include toluene, ethylbenzene, xylenes, naphthalene, 2-methylnaphthalene, 4-methylphenol, and 2,4-dimethylphenol. Locations of exceedance are limited to monitoring wells MW04S, MW05S, and MW06S.

2.6.4.8 Conclusions

The conclusions of the baseline human health risk assessment were based on the results of both quantitative and qualitative risk assessment methodologies and identify possible risks associated with human exposure to the soil, and groundwater at Site 7. The conservative nature of the risk assessment approach was intended to herald possible risks, but the assessments did not provide expressly accurate or definitive information regarding the occurrence of adverse health effects in humans exposed to site media. Several factors which are not apparent in the conclusions necessitate careful interpretation of the results and the risk management which will follow as future activities are planned. Cancer Slope Factors

(CSFs) are the upper 95 percent confidence limit of a dose-response curve generally derived from animal studies. Actual human risk, while not identifiable, is not expected to exceed the upper limit based on the CSFs, and, in fact, may be lower.

Conclusions were as follows:

- Based on the quantitative risk assessment, the current conditions at Site 7 do not pose cancer risks at levels which exceed benchmarks commonly used by EPA for risk management (i.e., ICR in excess of 1.0E-06). The calculated HI, which measures the likelihood of occurrence of adverse non-carcinogenic systemic health effects, is less than unity, which indicates none are expected. Under the evaluated scenario, occupational receptors are exposed during routine activity via ingestion and dermal exposures.

- Under a hypothetical future residential land use scenario, the calculated risks are above the both cancer and noncancer risk benchmarks. Exposure scenarios including soil contact and domestic use of groundwater were evaluated. Unlike the other RFI sites, the majority of the risks at Site 7 are provided by exposure to soil. The estimated ICR for adult residents (5.8E-05) is primarily attributable to benzo(a)pyrene in soil, which is the only Site 7 contaminant with an individual cancer risk contribution greater than 1.0E-06. The cumulative HI, an indicator of the potential for adverse systemic health effects, for the child residential receptor is 2.5. The primary contributor to this HI was xylene, which had a HQ of approximately 1.57. The child resident is the most sensitive receptor for systemic effects due to the high contact rate relative to the overall body weight of the receptor. Xylene overexposure is likely to manifest itself in the form of central nervous system effects.

- Analytical results available for some parameters exceed regulatory and other standards. The soils are noted to be contaminated with detected amounts of PAHs and phthalate esters, but only one benzo(a)pyrene result was noted to exceed the New York State TAGM 4046 Recommended Cleanup Goal. Groundwater chemical concentrations also eclipse both state and federal drinking water standards and state water quality standards. Exceedances are noted for toluene, ethylbenzene, xylenes, naphthalene, and 2-methylnaphthalene. The conclusions of the qualitative risk assessment generally mirror those for the quantitative assessment.

- Benzo(a)pyrene in soil and monocyclic aromatics and naphthalene in groundwater have been identified as posing unacceptable human health risks at Site 7 for hypothetical future residential land users. Current risk levels do not exceed the upper bound EPA cancer risk range goal of 1.0E-04.

2.7 DATA GAPS

Site 7 was investigated to fully delineate the nature and extent of contamination in soils and groundwater as the result of leaking former USTs or fuel spills at the site. The only identified data gap from the previous RFI was the extent of VOC contaminated groundwater to the east.

In addition, three USTs were excavated and removed from the site in August 1997. As a result, soil and groundwater from underneath these tanks could be tested to refine the estimated magnitude of contamination in the source area.

3.0 PHASE 2 SOIL AND GROUNDWATER INVESTIGATION

Between March 1997 and July 1997, the following Phase 2 field investigation activities were conducted at Site 7:

- Installation of four temporary monitoring wells to the east and north of the Fuel Depot. Groundwater samples were collected at two or more depths and analyzed for VOCs.

- Installation of three temporary monitoring wells in the area of the excavated 50,000-gallon USTs. Groundwater samples were analyzed for VOCs and SVOCs.

- Installation of one permanent monitoring well at the hydraulic down gradient edge of groundwater contamination.

- Sampled permanent monitoring well (2 rounds). Samples were analyzed for VOCs.

- Collection of 13 soils samples from bottom of excavation for the three 50,000-gallon USTs. Samples were analyzed for VOCs and SVOCs.

3.1 TEMPORARY MONITORING WELLS

Seven temporary monitoring wells were installed on site. Four of these wells were placed to the north (FD-TW-01, FD-TW-02) and east (FD-TW-03, FD-TW-04) of Site 7 to determine the downgradient horizontal extent of groundwater contamination. The three remaining wells (FD-TW-05 to FD-TW-07) were installed in the area of the recently excavated 50,000-gallon USTs to further define groundwater quality in the contamination source area. The locations of the temporary monitoring wells are presented in Figure 3-1.

The temporary wells were installed using the Geoprobe™ direct push method. The Geoprobe™ consists of a truck-mounted, sampling device which uses hydraulic pressure to push sampling rods into the ground. Groundwater samples were collected from various depths and soil samples were collected at selected locations using this method. Details of the samples were recorded on sample log sheets which are included as Appendix C. Chain of Custody forms are provided in Appendix D.

Groundwater samples from the four downgradient wells were submitted to Volumetric for quick-turn around (48 hours) analysis of VOCs and results are shown on Table 3-1. Groundwater samples from the three source area well were submitted to Quanterra for analysis of TCL VOCs and SVOCs and results are

TABLE 3-1

DOWNGRADIENT TEMPORARY MONITORING WELL ANALYTICAL RESULTS
SITE 7 - FUEL DEPOT AREA
PHASE 2 RFI
NWIRP CALVERTON, NEW YORK

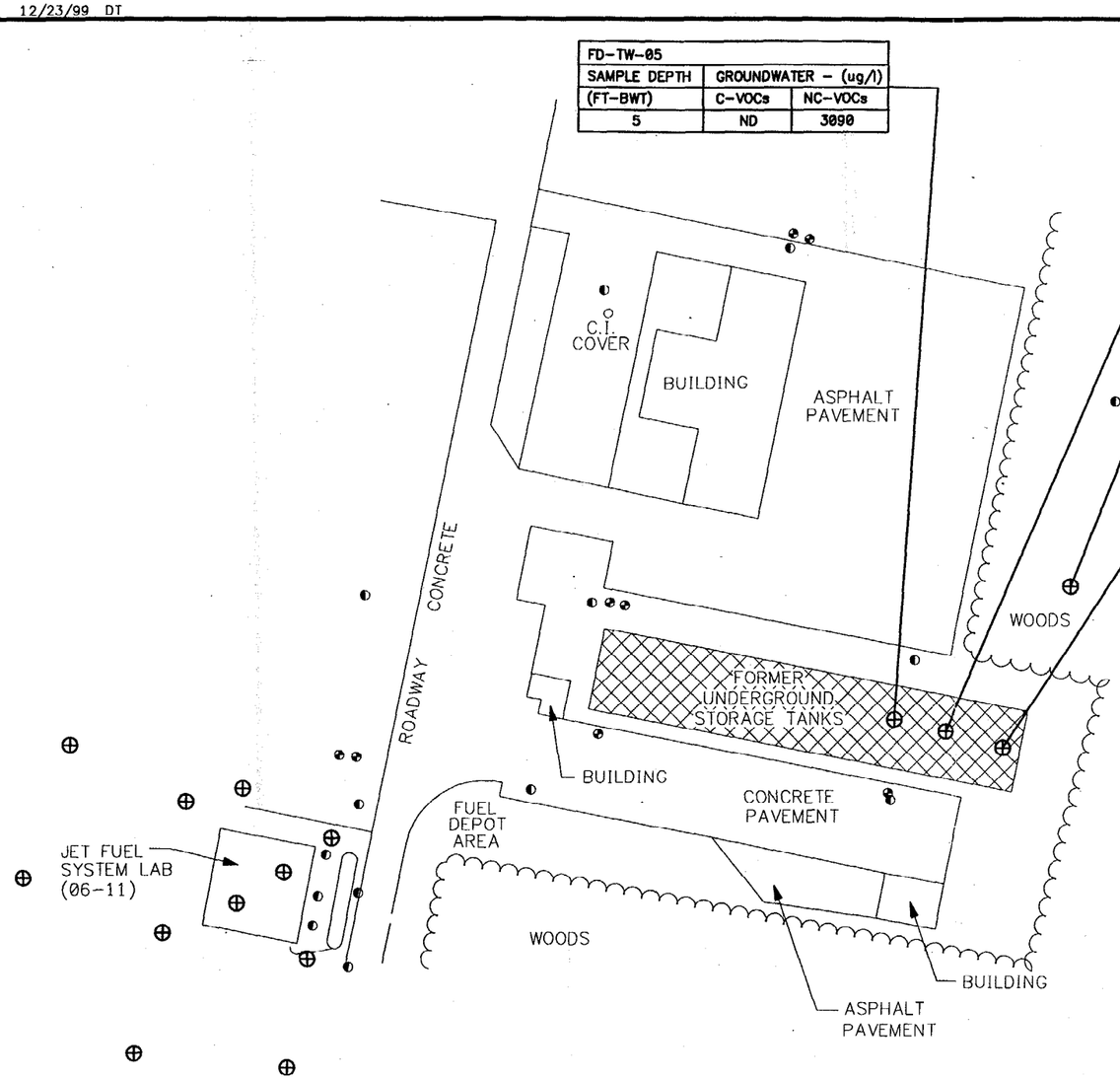
Chemical	FD-TW-01		FD-TW-02		FD-TW-03		FD-TW-04		
	Depth (ft bgs/bwt)		Depth (ft bgs/bwt)		Depth (ft bgs/bwt)		Depth (ft bgs/bwt)		
	17/5	36/20	19/5	34/20	19/5	34/20	19/5	34/20	54/40
NON-CHLORINATED VOCs (µg/L)									
Benzene					17	12			
Ethylbenzene					15	10			
Toluene					26	17	0.6	0.6	
Xylene					10	6			
CHLORINATED VOCs (µg/L)									
Chlorobenzene					11	8			
1,1-Dichloroethane									1
1,1,2-Trichloroethane				3					

NOTES:

All samples from downgradient temporary wells were analyzed on a quick turnaround (24 hours) by Volumetric

A blank space denotes that chemical was not detected at the analytical method detection limit

bgs: below ground surface
bwt: below water table
ft feet



FD-TW-05		
SAMPLE DEPTH	GROUNDWATER – (ug/l)	
(FT-BWT)	C-VOCs	NC-VOCs
5	ND	3090

FD-TW-06		
SAMPLE DEPTH	GROUNDWATER – (ug/l)	
(FT-BWT)	C-VOCs	NC-VOCs
5	ND	729

FD-TW-02		
SAMPLE DEPTH	GROUNDWATER – (ug/l)	
(FT-BWT)	C-VOCs	NC-VOCs
5	ND	ND
20	3	ND

FD-TW-07		
SAMPLE DEPTH	GROUNDWATER – (ug/l)	
(FT-BWT)	C-VOCs	NC-VOCs
5	ND	410

FD-TW-01		
SAMPLE DEPTH	GROUNDWATER – (ug/l)	
(FT-BWT)	C-VOCs	NC-VOCs
5	ND	ND
20	ND	ND

FD-TW-03		
SAMPLE DEPTH	GROUNDWATER – (ug/l)	
(FT-BWT)	C-VOCs	NC-VOCs
5	11	68
20	8	43

FD-TW-04/FD-MW07		
SAMPLE DEPTH	GROUNDWATER – (ug/l)	
(FT-BWT)	C-VOCs	NC-VOCs
5	ND	0.6
8	ND	ND
20	1	ND

LEGEND:

BWT	BELOW WATER TABLE
C-VOCs	CHLORINATED VOCs
NC-VOCs	NON-CHLORINATED VOCs
TPH	TOTAL PETROLEUM HYDROCARBONS (DRO+GRO)
ND	NOT DETECTED
–	NOT SAMPLED
⊕	TEMPORARY MONITORING WELL (1997)
◉	MONITORING WELL
◐	TEMPORARY MONITORING WELL (1994)

0 100 200
SCALE IN FEET

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY DLT DATE 12/22/99
CHECKED BY DATE
COST/SCHED–AREA
SCALE AS NOTED

Tetra Tech NUS, Inc.

GROUNDWATER DATA
SITE 7 – FUEL DEPOT
PHASE 2 – RFI
NWIRP, CALVERTON, NY

CONTRACT NO. 7398
OWNER NO. 0270
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO. FIGURE 3–1
REV. 0

FORM CADD NO. T:NUS_BH.DGN – REV 0 – 1/20/98

shown on Table 3-2. These results were compared to the NYSDEC drinking and groundwater protection standards. Chemical-specific VOC exceedances were noted in temporary monitoring wells FD-TW-02, FD-TW-03, FD-TW-05, FD-TW-06, and FD-TW-07. These finding indicate that the extent of groundwater contamination is defined and currently does not extend off site.

The results of the current investigation, as well as relevant results from the initial RFI, are also plotted on Figure 3-1.

3.2 PERMANENT MONITORING WELLS

One new permanent monitoring well (FD-MW07) was installed at the downgradient edge of the VOC-contaminated groundwater. Monitoring wells construction details are summarized in Table 3-3. The location of this well, as well as the locations of previously-installed permanent monitoring wells are presented in Figure 3-2. Monitoring Well Construction Sheets are provided in Appendix D.

Groundwater samples were collected from monitoring well FD-MW07 in June 1997 and November 1997. A low-flow sampling technique was used to collect this sample. The purpose of this sampling technique is to minimize stress on the surrounding fill material by using low water-level draw downs and pumping rates. EPA standard operating procedures (SOPs) were followed during collection of the sample.

A Grunfos-brand submersible pump with a flow control box was used to collect the sample. Teflon™-lined polyethylene tubing was used as the discharge for the pump. The water level in the well was measured first and then the pump was lowered slowly and gently to the mid-point of the saturated screen length. The pump was then turned on, and the flow rate was adjusted very slowly. The maximum amount of water pumped out of the well was one liter per minute.

While the well was being pumped, the following indicator field parameters were measured approximately every five minutes: temperature, specific conductivity, pH, dissolved oxygen (DO), and turbidity.

The EPA SOPs specify the following guidelines for field parameter stabilization:

turbidity - 10% for values greater than 1 nephelometric turbidity unit (NTU))
DO - 10%
specific conductance - 3%
temperature - 3%
pH - ± 0.1 unit

TABLE 3-2

SOURCE AREA TEMPORARY MONITORING WELL ANALYTICAL RESULTS
SITE 7 - FUEL DEPOT AREA
PHASE 2 RFI
NWIRP CALVERTON, NEW YORK

Chemical	FD-TW-05	FD-TW-06	FD-TW-07
	3-5 ft bwt	3-5 ft bwt	3-5 ft bwt
VOCs (µg/L)			
Benzene		12	11
Ethylbenzene	480	170	67
Toluene	710	7 J	12
Xylene	1,900	540	320
SVOCs (µg/L)			
Diethylphthalate		3 J	
2,4-Dimethylphenol	2 J		
Fluorene	1 J		1 J
2-Methylnapthalene	54	69	62
2-Methylphenol		2 J	2 J
4-Methylphenol	3 J		
Naphthalene	80	110	79
Phenathrene	1 J		
Carbazole			10
Tentatively Identified Compounds	Yes	Yes	Yes

NOTES:

All samples from source area temporary wells were analyzed by Quanterra

A blank space denotes that chemical was not detected at the analytical method's detection limit

bwt	below water table
ft	feet
J	estimated concentration
SVOCs:	semi-volatile organic compounds
VOCs:	volatile organic compounds

TABLE 3-3

GROUNDWATER MONITORING WELL CONSTRUCTION DETAILS
SITE 7 - FUEL DEPOT AREA
NWIRP CALVERTON, NEW YORK

Well No.	Date Installed	Top of Casing Elevation (feet)	Depth to Water (feet)	Total Well Depth (feet)	Screened Interval (feet bgs)	Water Level Elevation (feet)
FD-MW07	06/09/97	57.01	15.12	21	10 to 20	41.89

NOTE:

bgs: below ground surface

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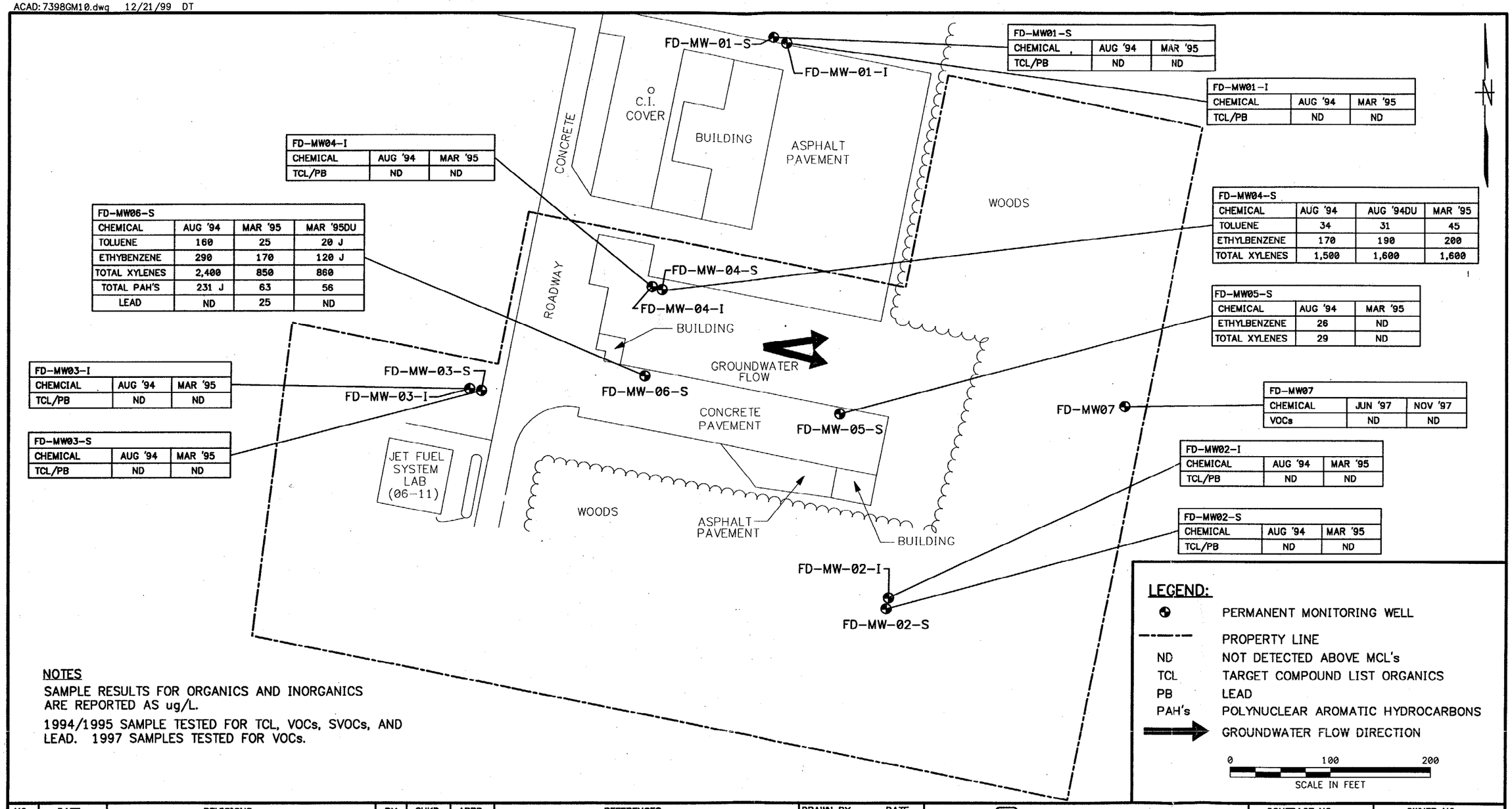

FD-MW01-S			
CHEMICAL	AUG '94	MAR '95	
TCL/PB	ND	ND	

FD-MW01-I			
CHEMICAL	AUG '94	MAR '95	
TCL/PB	ND	ND	

FD-MW04-I			
CHEMICAL	AUG '94	MAR '95	
TCL/PB	ND	ND	

FD-MW04-S			
CHEMICAL	AUG '94	AUG '94DU	MAR '95
TOLUENE	34	31	45
ETHYLBENZENE	170	190	200
TOTAL XYLENES	1,500	1,600	1,600

FD-MW06-S			
CHEMICAL	AUG '94	MAR '95	MAR '95DU
TOLUENE	160	25	20 J
ETHYBENZENE	290	170	120 J
TOTAL XYLENES	2,400	850	860
TOTAL PAH'S	231 J	63	56
LEAD	ND	25	ND

FD-MW05-S		
CHEMICAL	AUG '94	MAR '95
ETHYLBENZENE	26	ND
TOTAL XYLENES	29	ND

FD-MW03-I		
CHEMCIAL	AUG '94	MAR '95
TCL/PB	ND	ND

FD-MW07		
CHEMICAL	JUN '97	NOV '97
VOCs	ND	ND

FD-MW03-S		
CHEMICAL	AUG '94	MAR '95
TCL/PB	ND	ND

FD-MW02-I		
CHEMICAL	AUG '94	MAR '95
TCL/PB	ND	ND

FD-MW02-S		
CHEMICAL	AUG '94	MAR '95
TCL/PB	ND	ND

NOTES

SAMPLE RESULTS FOR ORGANICS AND INORGANICS ARE REPORTED AS ug/L.

1994/1995 SAMPLE TESTED FOR TCL, VOCs, SVOCs, AND LEAD. 1997 SAMPLES TESTED FOR VOCs.

LEGEND:

- PERMANENT MONITORING WELL
- PROPERTY LINE
- ND NOT DETECTED ABOVE MCL's
- TCL TARGET COMPOUND LIST ORGANICS
- PB LEAD
- PAH's POLYNUCLEAR AROMATIC HYDROCARBONS
- GROUNDWATER FLOW DIRECTION

0 100 200
SCALE IN FEET

NO.	DATE	REVISIONS	BY	CHKD	APPD	REFERENCES

DRAWN BY DLT DATE 12/21/99
CHECKED BY DATE
COST/SCHED-AREA
SCALE AS NOTED

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE RESULTS EXCEEDING CRITERIA
SITE 7 – FUEL DEPOT
PHASE 2 RFI
NWIRP, CALVERTON, NY

CONTRACT NO. 7398
OWNER NO. 0270
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO. FIGURE 3-2
REV. 0

FORM CADD NO. T:\NUS_BH.DGN - REV 0 - 1/20/98

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These guidelines were followed, and the data was recorded on field log sheets (see Appendix F). After stabilization, the sample was collected directly from the tubing into the sample container.

The samples collected from monitoring well FD-MW07 was analyzed for TCL VOCs by Quanterra. During the June 1997 sample event, only chloroform, at an estimated concentration of 1.2 µg/L, was detected. During the November 1997 sample event, only tetrachloroethene at 4.2J µg/L and 1,1,1-trichloroethane at 2.0J µg/L were detected. These concentrations are less than applicable EPA and NYSDEC groundwater/drinking water criteria. Analytical results from previous investigations which exceeded EPA or NYSDEC criteria are shown on Figure 4-2.

3.3 SUMMARY OF GROUNDWATER CONTAMINATION

Data from the Phase 2 RFI was combined with the data from previous investigation to delineate the extent of groundwater contamination through use of Environmental Visualization System (EVS). Data from neighboring Site 10A - Jet Fuel Systems Laboratory was also used for this evaluation as it may impact Site 7 groundwater quality. EVS Figures 3-3 and 3-4 show respectively a plan and side view of the contaminant plume for benzene, toluene, ethylbenzene, and xylenes (BTEX), which are the main chemicals of concern at Site 7.

Based on the modeling results, the western half of the former underground storage tank area was the primary source of groundwater contamination in this area. The horizontal extent of groundwater contamination is approximately 120 feet beyond the eastern edge of the former underground storage tank area. The maximum vertical extent of groundwater contamination is near the downgradient edge of the plume and is approximately 25 feet below the water table (40 feet below ground surface). Only minor and sporadic detections of BTEX chemicals were detected in the area of Site 10A -Jet Fuel Systems Laboratory. Based on the modeling results, only minor levels of chlorinated VOCs were detected at Sites 7 and 10A.

EVS Figure 3-5 shows a plan and side view of chlorinated organics contamination. EVS Figure 3-6 shows a plan and side view of the Site 10A Freon contamination which may impact Site 7. Based on the modeling results, one area of freon contaminated groundwater was detected near the southwest corner of Site 7. The horizontal and vertical extent of the contamination is defined.

As shown on the above-mentioned figures, the extent of the groundwater contamination is adequately defined to proceed from the study phase to the alternative analysis phase.

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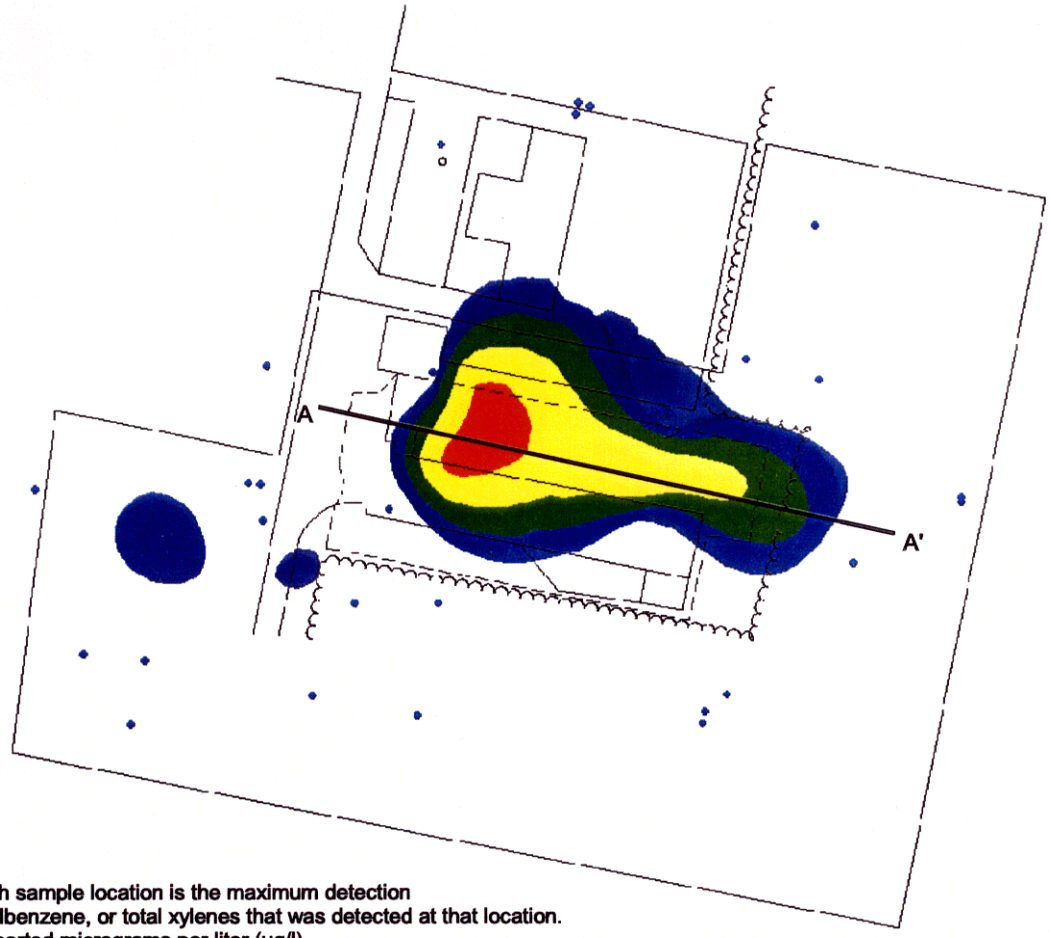
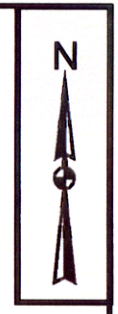




LEGEND

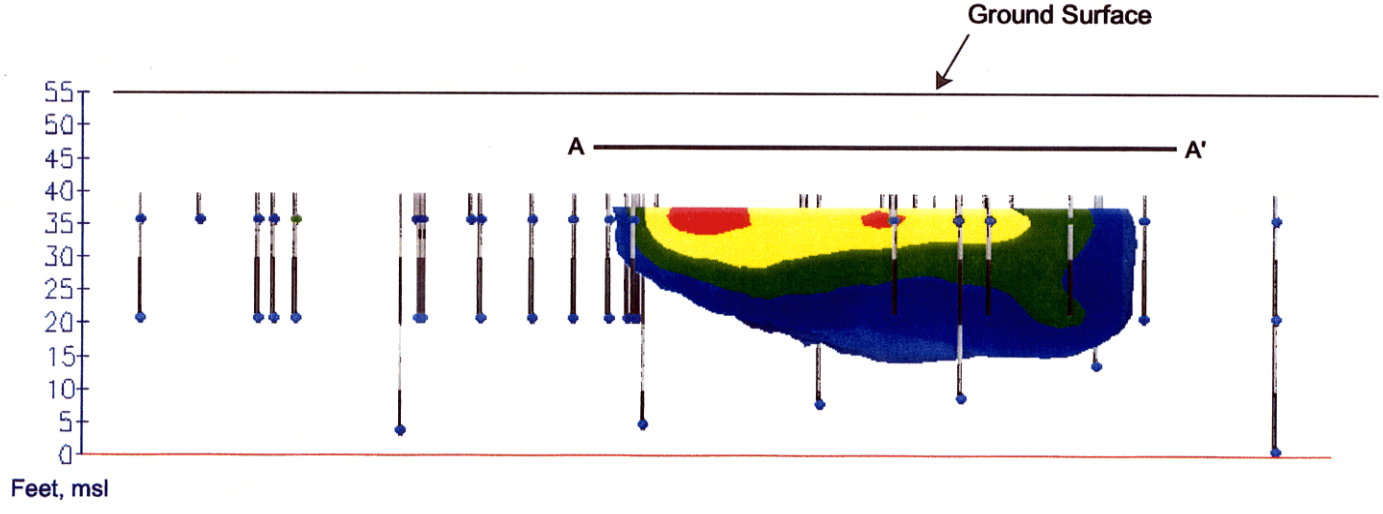
- Non-detect - 5
- 5 - 50
- 50 - 500
- 500 - Maximum

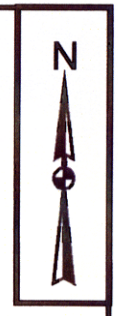
Notes:
(1) The concentration at each sample location is the maximum detection of benzene, toluene, ethylbenzene, or total xylenes that was detected at that location.
(2) All concentrations are reported micrograms per liter (ug/l).
(3) Blue sample points indicate non-detect; blue plume indicates 0.7 - 5 ug/l range.

DRAWN BY: J. LAMEY — DATE: 12/28/99	Tetra Tech NUS, Inc.	CONTRACT NUMBER: 7398	OWNER NUMBER: —
CHECKED BY: ___ — DATE: ___	BTEX EXCEEDING 0.7 UG/L PLAN VIEW SITES 7 & 10A	APPROVED BY: — — DATE: —	
COST/SCHEDULE-AREA		APPROVED BY: — — DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 3-3	REV: 0

P:\GIS\NWIRP_CALVERTON\EVS\SITES7&10A_MAX.APR MAX-BTEX-PLAN VIEW 12/28/99 JAL

MW17 BB5Y



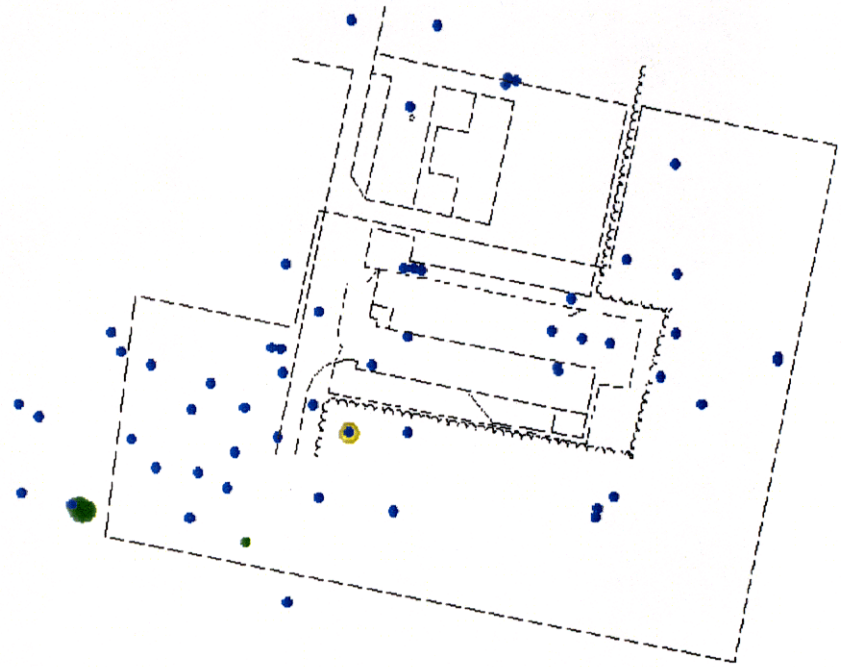


LEGEND
- Non-detect - 5
- 5 - 50
- 50 - 500
- 500 - Maximum

Notes:
(1) The concentration at each sample location is the maximum detection of benzene, toluene, ethylbenzene, or total xylenes that was detected at that location.
(2) All concentrations are reported micrograms per liter (ug/l).
(3) Blue sample points indicate non-detect; blue plume indicates 0.7 - 5 ug/l range.
(4) Side view is oriented at azimuth 180 (facing due north), elevation 0.

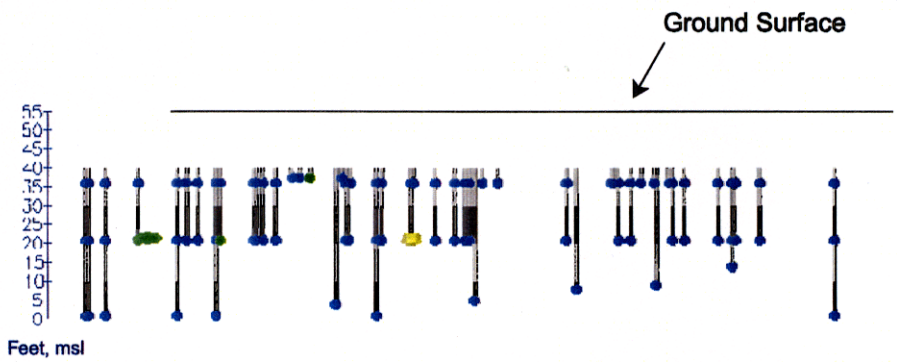
DRAWN BY: J. LAMEY — DATE: 12/28/99	Tetra Tech NUS, Inc.	CONTRACT NUMBER: 7398	OWNER NUMBER: —
CHECKED BY: — — DATE: —	BTEX EXCEEDING 0.7 UG/L CROSS-SECTION A - A' SITES 7 & 10A	APPROVED BY: — DATE: —	
COST/SCHEDULE-AREA		APPROVED BY: — DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 3-4	REV: 0

P:\GIS\NWIRP_CALVERTON\EVS\SITES7&10A_MAX.APR MAX-BTEX-CROSS-SECTION 12/28/99 JAL



Plan View

Side View

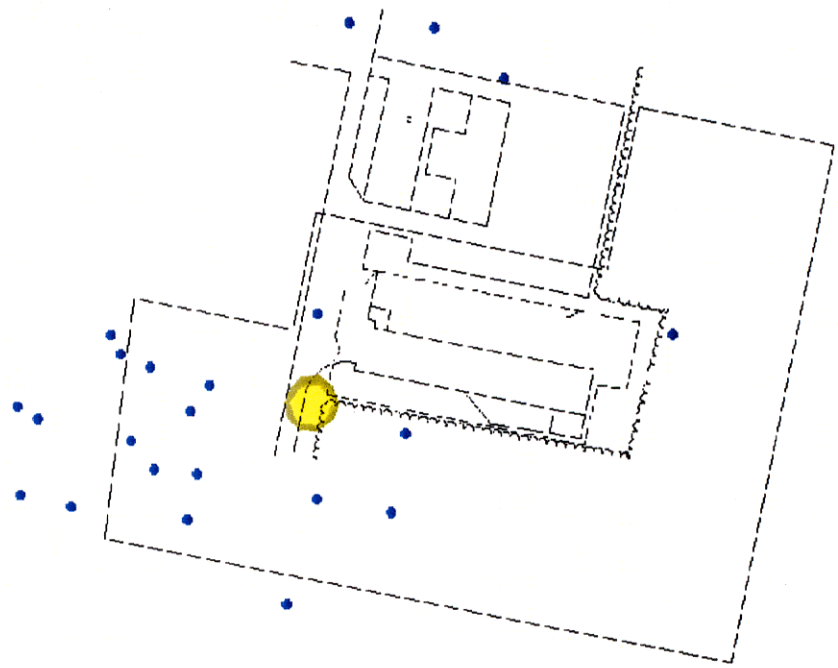


LEGEND
- Non-detect - 5
- 5 - 50
- 50 - 500
- 500 - Maximum

Notes:
(1) The concentration at each sample location is the maximum detection of trichloroethene, 1,2-dichloroethane, or 1,1-dichloroethene that was detected at that location.
(2) All concentrations are reported micrograms per liter (ug/l).
(3) Side view is oriented at azimuth 180 (facing due north), elevation 0.

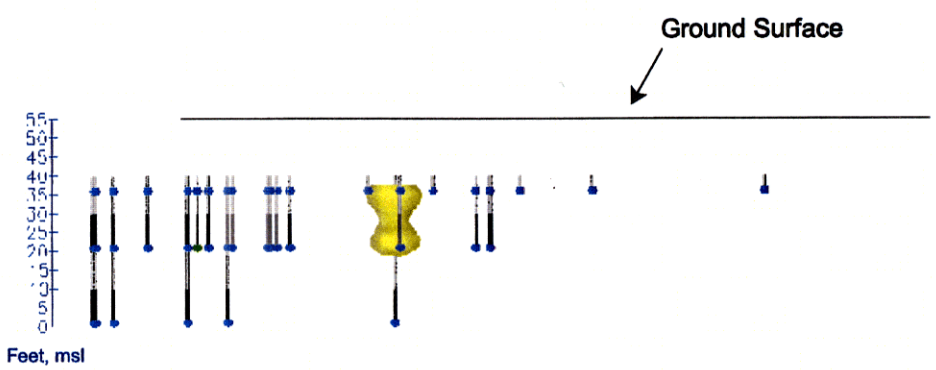
DRAWN BY: J. LAMEY — DATE: 12/28/99	Tetra Tech NUS, Inc.	CONTRACT NUMBER: 7398	OWNER NO.: —
CHECKED BY: — — DATE: —	CHLORINATED ORGANICS EXCEEDING 5 UG/L SITES 7 & 10A	APPROVED BY: — DATE: —	
COST/SCHEDULE-AREA		APPROVED BY: — DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 3-5	REV: 0

P:\GIS\NWIRP_CALVERTON\EVS\SITES7&10A\SITES7&10A_MAX.APR CHLORINATED ORGANICS 12/28/99 JAL



Plan View

Side View



LEGEND
- Non-detect - 5
- 5 - 50
- 50 - 500
- 500 - Maximum

Notes:
(1) All concentrations are reported micrograms per liter (ug/l).
(2) Side view is oriented at azimuth 180 (facing due north), elevation 0.

DRAWN BY: J. LAMEY; DATE: 12/28/99	Tetra Tech NUS, Inc.	CONTRACT NUMBER: 7398	OWNER NO.: —
CHECKED BY: — ; DATE: —	FREON EXCEEDING 5 UG/L SITES 7 & 10A	APPROVED BY: — ; DATE: —	
COST/SCHEDULE-AREA		APPROVED BY: — ; DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 3-6	REV: 0

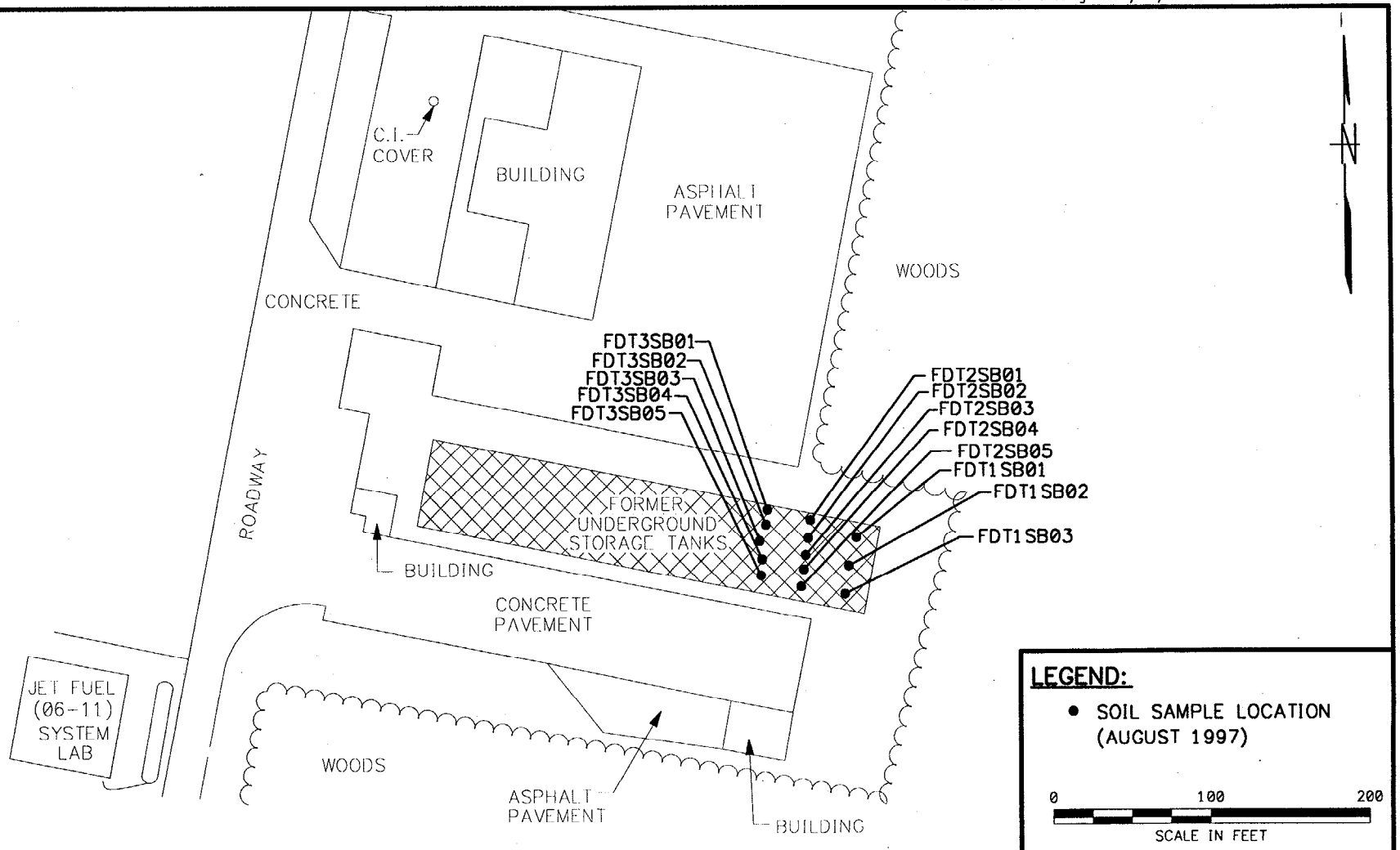
P:\GIS\NWIRP_CALVERTON\EVS\SITES7&10A\SITES7&10A_MAX.APR FREON 12/28/99 JAL

3.4 SOIL TESTING

Thirteen soil samples were collected from the bottom of the excavation during the removal of the three 50,000-gallon USTs, as shown on Figure 3-7. Three, five, and five samples were collected from underneath Tank Nos. 1, 2, and 3, respectively. Sampling depth was approximately 15 to 17 feet bgs, which corresponds approximately to the bottom elevation of each of the former USTs. This depth is also close to the seasonal high groundwater table elevation. Samples were analyzed for TCL VOCs and SVOCs.

Analytical testing results are presented in Table 3-4. For comparison purposes, Table 3-4 also shows the NYSDEC Spill Technology and Remediation Series (STARS) Memo No. 1 (NYSDEC, 1992) criteria for soils. These criteria represent potential cleanup standards for soil contaminated with petroleum products. Based upon this comparison, 5 of the 13 samples would exceed the criteria for one or more chemicals, and at least one of these 5 samples is located under each former UST. The detected chemicals are PAHs, which are normal constituents of fuels. These findings are consistent with previous site investigations, which detected PAHs in soil at a depth near the water table (14 to 16 feet bgs).

ACAD: 7398cm37.dwg 12/21/99 DT



DRAWN BY DLT DATE 12/21/99	Tetra Tech NUS, Inc.	CONTRACT NO. 7398	OWNER NO. 0270
CHECKED BY DATE	AUGUST 1997 SOIL SAMPLE LOCATION MAP SITE 7 – FUEL DEPOT PHASE 2 – RFI NWIRP, CALVERTON, NY	APPROVED BY DATE	
COST/SCHED-AREA		APPROVED BY DATE	
SCALE AS NOTED		DRAWING NO. FIGURE 3-7	REV. 0

FORM CADD NO. TtNUS_AH.DWG - REV 0 - 1/22/98

TABLE 3-4

SUBSURFACE SOIL ANALYTICAL RESULTS
50,000 GALLON FUEL TANKS
SITE 7 - FUEL DEPOT AREA
PHASE 2 RFI
NWIRP CALVERTON, NEW YORK
PAGE 1 OF 3

Chemical	STARS[1] Memo No.1	FDT1SB01	FDT1SB02		FDT1SB03	FDT2SB01	FDT2SB02	FDT2SB03
				T1-DUP-7				
VOCs (µg/kg)								
Toluene						4J		
PAHs (µg/kg)								
Anthracene	>100,000		610J	1200J	310J			
Benzo(a)anthracene	220	3,300	1,500	2,300	2,000	100J		
Benzo(b)fluoranthene	220	1,700	760	1,100	1,200J	430		
Benzo(k)fluoranthene	220	1,700	700J	1,200J	920J	250J		
Benzo(ghi)perylene		1,100J	560J	830J	720J	190J		
Benzo(a)pyrene	61	2,200	990	1,500J	1,400J	500		
Chrysene		3,100	1,600	2,600	2,100	410		
Dibenz(a,h)anthracene				240J				
Fluorene	>100,000		180J	550J				
Fluoranthene	>100,000	7,400	4,200	6,900	4,600	130J		
Indeno(1,2,3-cd)pyrene		1,400J	650J	980J	860J	250J		
Phenanthrene			870J	2,100J	250J			
Pyrene	>100,000	10,000	3,400	5,300	4,900	120J		
Carbazole			120J					
Tentatively Identified Compounds		Yes	Yes	Yes	Yes	Yes		

TABLE 3-4

SUBSURFACE SOIL ANALYTICAL RESULTS
50,000 GALLON FUEL TANKS
SITE 7 - FUEL DEPOT AREA
PHASE 2 RFI
NWIRP CALVERTON, NEW YORK

Chemical	STARS[1] Memo No.1	FDT2SB04	FDT2SB05	FDT3SB01	FDT3SB02	FDT3SB03	FDT3SB04	FDT3SB05
VOCs (µg/kg)								
Toluene								
PAHs (µg/kg)								
Anthracene	>100,000							
Benzo(a)anthracene	220							
Benzo(b)fluoranthene	220					82J		50J
Benzo(k)fluoranthene	220							
Benzo(ghi)perylene		360				390		280J
Benzo(a)pyrene	61					36J		170J
Chrysene								
Fluorene	>100,000							
Fluoranthene	>100,000							
Indeno(1,2,3-cd)pyrene		380				480		340
Phenanthrene								
Pyrene	>100,000							
Carbazole								
Tentatively Identified Compounds		Yes				Yes		Yes

TABLE 3-4

SUBSURFACE SOIL ANALYTICAL RESULTS
50,000 GALLON FUEL TANKS
SITE 7 - FUEL DEPOT AREA
PHASE 2 RFI
NWIRP CALVERTON, NEW YORK

NOTES:

Samples were collected at the bottom of each tank excavation, which is approximately 15 to 17 feet below ground surface.
A blank space denotes that either a criterion does not exist or a chemical was not detected at the analytical method detection limit

1 Spill Technology and Remediation Series (STARS) Memorandum No. 1: Petroleum Soil Guidance Policy, New York State Department of Environmental Conservation (NYSDEC) Division of Spills Management, August 1992

J estimated value
PAHs: polycyclics. aromatic hydrocarbons
VOCs: volatile organic compounds.

4.0 ECOLOGICAL RISK EVALUATION

Site 7 lies in an area of disturbed soils and ruderal (weedy) terrestrial vegetation that lacks sensitive ecological receptors capable of being significantly affected in an adverse manner by environmental contamination. There are no wetlands, surface water, or aquatic communities, nor any special status species or unique terrestrial communities located on or adjacent to contaminated areas at this site. Because of the lack of sensitive receptors potentially exposed to contamination at this site, no formal ecological risk evaluation was performed.

5.0 CONCLUSIONS

The following conclusions were developed based upon the results of the Phase 1 and Phase 2 RFIs at Site 7, the Fuel Depot Area:

- The extent of groundwater contamination at Site 7 is now adequately defined.

- Enough data now exists between both phases of the RFI to proceed to a CMS for this site to evaluate remedial options that will address groundwater contamination. Fuel type volatile organic compounds in groundwater are the primary site concern.

- PAH contamination was identified in deep soils at the site (greater than 14 feet below ground surface). The potential concern with PAH contamination at the observed concentrations is through the accidental ingestion and inhalation of dust pathways to humans under a residential use scenario. Under current site and likely future use scenarios, the presence of 14 feet of uncontaminated soils above this PAH contamination would prevent exposure to humans. Since PAHs do not readily dissolve into groundwater, groundwater migration is not a concern. In addition, over the long term PAHs will biodegrade naturally and activities to remediate groundwater will further enhance PAH degradation. However to ensure adequate consideration, PAH contaminated soil will be addressed in a CMS with the groundwater contamination.

- The PAH contaminated soil was observed at the depth of a former floating free product layer. Based on field testing conducted in 1998, the free product layer no longer exists at the site.

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APPENDIX A
ANALYTICAL LABORATORY DATA SHEETS

A.1 Groundwater From Temporary Wells

A.2 Groundwater From Permanent monitoring Well

A.3 Soil Boring

A.1
GROUNDWATER FROM TEMPORARY WELLS

NOTE: Groundwater samples collected from temporary well locations are identified as GW (for ground water) in the following analytical laboratory data sheets. These sampling locations are identified as TW (for temporary well) in the text and tables of this report.

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR325

Matrix: (soil/water) WATER Lab Sample ID:C7G140140 009
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 07/12/97
Work Order: CAMM3101 Date Extracted:07/17/97
Dilution factor: 1 Date Analyzed: 07/17/97
Moisture %:NA

QC Batch: 7199113

Client Sample Id: GCIW-GW01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

Lab Name:QUANTERRA SDG Number: BR325

Matrix: (soil/water) WATER Lab Sample ID:C7G140140 009
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 07/12/97
Work Order: CAMM3101 Date Extracted:07/17/97
Dilution factor: 1 Date Analyzed: 07/17/97
Moisture %:NA

QC Batch: 7199113

Client Sample Id: GCIW-GW01

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR325

Matrix: (soil/water) WATER Lab Sample ID:C7G140140 009
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 07/12/97
Work Order: CAMM3101 Date Extracted:07/17/97
Dilution factor: 1 Date Analyzed: 07/17/97
Moisture %:NA

QC Batch: 7199113

Client Sample Id: GCIW-GW01

		(ug/L or ug/kg) ug/L		
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	no tics detected			ND

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 006

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 1 / mL
Work Order: CE17K101
Dilution factor: 5
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/18/97

QC Batch: 7322109

Client Sample Id: FD-GW-05

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
67-64-1	Acetone	50	U
71-43-2	Benzene	50	U
75-27-4	Bromodichloromethane	50	U
75-25-2	Bromoform	50	U
74-83-9	Bromomethane	50	U
78-93-3	2-Butanone	50	U
75-15-0	Carbon disulfide	50	U
56-23-5	Carbon tetrachloride	50	U
108-90-7	Chlorobenzene	50	U
124-48-1	Dibromochloromethane	50	U
75-00-3	Chloroethane	50	U
67-66-3	Chloroform	50	U
74-87-3	Chloromethane	50	U
75-34-3	1,1-Dichloroethane	50	U
107-06-2	1,2-Dichloroethane	50	U
75-35-4	1,1-Dichloroethene	50	U
540-59-0	1,2-Dichloroethene (total)	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
10061-02-6	trans-1,3-Dichloropropene	50	U
100-41-4	**Ethylbenzene**	**480**	
591-78-6	2-Hexanone	50	U
75-09-2	Methylene chloride	50	U
108-10-1	4-Methyl-2-pentanone	50	U
100-42-5	Styrene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
127-18-4	Tetrachloroethene	50	U
108-88-3	**Toluene**	**710**	

0059

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 006
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 1 / mL Date Received: 11/13/97
Work Order: CE17K101 Date Extracted:11/18/97
Dilution factor: 5 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-05

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-55-6	1,1,1-Trichloroethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
79-01-6	Trichloroethene	50	U
75-01-4	Vinyl chloride	50	U
1330-20-7	Xylenes (total)	1900	

0060

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 006
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 1 / mL Date Received: 11/13/97
Work Order: CE17K101 Date Extracted:11/18/97
Dilution factor: 5 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-05

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
0-00-0	unknown	6.6	140	J
98-82-8	benzene, (1-methylethyl)- or	20.43	1000	J
611-14-3	benzene, 1-ethyl-2-methyl- o	20.95	440	J
95-36-3	1,2,4-trimethylbenzene or is	21.17	1200	J
526-73-8	benzene, 1,2,3-trimethyl- or	21.93	550	J
0-00-0	unknown benzene	22.18	170	J
0-00-0	unknown benzene	22.3	190	J
611-15-4	benzene, 1-ethenyl-2-methyl-	22.4	200	J
1074-55-1	benzene, 1-methyl-4-propyl-	22.57	160	J
2870-04-4	benzene, 2-ethyl- 1,3-dimeth	22.77	200	J
2870-04-4	benzene, 2-ethyl-1,3-dimethy	23.4	140	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 006
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL Date Received: 11/13/97
Work Order: CE17K102 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/26/97
Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-05

TW

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
111-44-4	bis(2-Chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	bis(2-Ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
120-83-2	2,4-Dichlorophenol	10	U

0111

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 006

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17K102
Dilution factor: 1
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/26/97

QC Batch: 7324105

Client Sample Id: FD-GW-05

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
84-66-2	Diethyl phthalate	10	U
105-67-9	**2,4-Dimethylphenol**	**2.2**	**J**
131-11-3	Dimethyl phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
51-28-5	2,4-Dinitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
206-44-0	Fluoranthene	10	U
86-73-7	**Fluorene**	**1.0**	**J**
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	**2-Methylnaphthalene**	**54**	
95-48-7	2-Methylphenol	10	U
106-44-5	**4-Methylphenol**	**2.6**	**J**
91-20-3	**Naphthalene**	**80**	
88-74-4	2-Nitroaniline	25	U
99-09-2	3-Nitroaniline	25	U
100-01-6	4-Nitroaniline	25	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	25	U
621-64-7	N-Nitrosodi-n-propylamine	10	U
86-30-6	N-Nitrosodiphenylamine	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 006
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL Date Received: 11/13/97
Work Order: CE17K102 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/26/97
Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-05

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
87-86-5	Pentachlorophenol	25	U
85-01-8	**Phenanthrene**	**1.1**	**J**
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
88-06-2	2,4,6-Trichlorophenol	10	U
86-74-8	Carbazole	10	U

0113

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 006

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17K102
Dilution factor: 1
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/26/97

QC Batch: 7324105

Client Sample Id: FD-GW-05

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
98-82-8	Benzene, (1-methylethyl)-	3.5505	19	JN
103-65-1	Benzene, propyl-	3.7719	35	JN
	UNKNOWN SUBSTITUTED BENZENE	3.8432	120	J
95-63-6	Benzene, 1,2,4-trimethyl-	3.8861	50	JN
526-73-8	Benzene, 1,2,3-trimethyl-	4.2644	100	JN
	UNKNOWN SUBSTITUTED BENZENE	4.4143	37	J
	UNKNOWN SUBSTITUTED BENZENE	4.4572	48	J
	UNKNOWN SUBSTITUTED BENZENE	4.7713	4.1	J
	UNKNOWN SUBSTITUTED BENZENE	4.8284	3.7	J
	UNKNOWN SUBSTITUTED BENZENE	4.8569	4.7	J
	UNKNOWN SUBSTITUTED BENZENE	4.9426	2.4	J
	UNKNOWN SUBSTITUTED BENZENE	5.0782	12	J
119-64-2	Naphthalene, 1,2,3,4-tetrahy	5.1568	7.3	JN
	UNKNOWN	5.1924	2.9	J
	UNKNOWN SUBSTITUTED NAPHTHAL	5.8563	3.0	J
	UNKNOWN ALKANE	5.9848	2.9	J
90-12-0	Naphthalene, 1-methyl-	6.2347	8.0	JN
	UNKNOWN AROMATIC	6.7201	6.6	J
	UNKNOWN AROMATIC	7.0699	22	J
	UNKNOWN SUBSTITUTED NAPHTHAL	7.1056	5.9	J
10544-50-0	Sulfur, mol. (s8)	12.373	26	JN

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 005
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 11/13/97
Work Order: CE17J101 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-06

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
67-64-1	Acetone	10	U
71-43-2	**Benzene**	**12**	
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	**Ethylbenzene**	**170**	
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	**Toluene**	**7.3**	**J**

0053

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 005
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 11/13/97
Work Order: CE17J101 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-06

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-55-6	1,1,1-Trichloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	**Xylenes (total)**	**890**	**E**

0054

FORM I

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab.Sample ID:C7K130115 005
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 11/13/97
Work Order: CE17J101 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-06

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
488-23-2	benzene, 1,2,3,4-tetramethyl	17.47	61	J
611-14-3	benzene, 1-ethyl-2-methyl- o	20.48	280	J
95-63-6	benzene, 1,2,4-trimethyl- or	20.57	200	J
95-36-3	1,2,4-trimethylbenzene or is	21.22	680	J
0-00-0	unknown aromatic	21.63	51	J
95-36-3	1,2,4-trimethylbenzene or is	21.95	370	J
0-00-0	unknown benzene	22.2	66	J
527-84-4	benzene, 1-methyl-2-(1-methy	22.32	94	J
1074-55-1	benzene, 1-methyl-4-propyl-	22.6	59	J
934-80-5	benzene, 4-ethyl-1,2-dimethy	22.78	110	J
934-80-5	benzene, 4-ethyl-1,2-dimethy	22.92	63	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 005
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 1 / mL Date Received: 11/13/97
Work Order: CE17J201 Date Extracted:11/18/97
Dilution factor: 5 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-06 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
67-64-1	Acetone	50	U
71-43-2	**Benzene**	**9.7**	**J**
75-27-4	Bromodichloromethane	50	U
75-25-2	Bromoform	50	U
74-83-9	Bromomethane	50	U
78-93-3	2-Butanone	50	U
75-15-0	Carbon disulfide	50	U
56-23-5	Carbon tetrachloride	50	U
108-90-7	Chlorobenzene	50	U
124-48-1	Dibromochloromethane	50	U
75-00-3	Chloroethane	50	U
67-66-3	Chloroform	50	U
74-87-3	Chloromethane	50	U
75-34-3	1,1-Dichloroethane	50	U
107-06-2	1,2-Dichloroethane	50	U
75-35-4	1,1-Dichloroethene	50	U
540-59-0	1,2-Dichloroethene (total)	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
10061-02-6	trans-1,3-Dichloropropene	50	U
100-41-4	**Ethylbenzene**	**110**	
591-78-6	2-Hexanone	50	U
75-09-2	Methylene chloride	50	U
108-10-1	4-Methyl-2-pentanone	50	U
100-42-5	Styrene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
127-18-4	Tetrachloroethene	50	U
108-88-3	**Toluene**	**6.6**	**J**

0056

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 005
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 1 / mL Date Received: 11/13/97
Work Order: CE17J201 Date Extracted:11/18/97
Dilution factor: 5 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-06 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-55-6	1,1,1-Trichloroethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
79-01-6	Trichloroethene	50	U
75-01-4	Vinyl chloride	50	U
1330-20-7	Xylenes (total)	540	

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Lab Sample ID:C7K130115 005

Sample WT/Vol: 1 / mL
Work Order: CE17J201
Dilution factor: 5
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/18/97

QC Batch: 7322109

Client Sample Id: FD-GW-06 -RE 1

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
98-82-8	benzene, (1-methylethyl)- or	19.62	26	J
98-82-8	benzene, (1-methylethyl)- or	20.5	140	J
95-63-6	benzene, 1,2,4-trimethyl- or	20.58	100	J
95-36-3	1,2,4-trimethylbenzene or is	21.22	320	J
934-80-5	benzene, 4-ethyl-1,2-dimethy	21.65	28	J
526-73-8	benzene, 1,2,3-trimethyl- or	21.97	200	J
0-00-0	unknown benzene	22.22	41	J
527-84-4	benzene, 1-methyl-2-(1-methy	22.33	60	J
1074-55-1	benzene, 1-methyl-4-propyl-	22.62	35	J
934-80-5	benzene, 4-ethyl-1,2-dimethy	22.8	65	J
934-80-5	benzene, 4-ethyl-1,2-dimethy	22.92	36	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17J102
Dilution factor: 2
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/26/97

QC Batch: 7324105

Client Sample Id: FD-GW-06

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
83-32-9	Acenaphthene	20	U
208-96-8	Acenaphthylene	20	U
120-12-7	Anthracene	20	U
56-55-3	Benzo(a)anthracene	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
191-24-2	Benzo(ghi)perylene	20	U
50-32-8	Benzo(a)pyrene	20	U
111-91-1	bis(2-Chloroethoxy)methane	20	U
111-44-4	bis(2-Chloroethyl) ether	20	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	U
117-81-7	bis(2-Ethylhexyl) phthalate	20	U
101-55-3	4-Bromophenyl phenyl ether	20	U
85-68-7	Butyl benzyl phthalate	20	U
106-47-8	4-Chloroaniline	20	U
59-50-7	4-Chloro-3-methylphenol	20	U
91-58-7	2-Chloronaphthalene	20	U
95-57-8	2-Chlorophenol	20	U
7005-72-3	4-Chlorophenyl phenyl ether	20	U
218-01-9	Chrysene	20	U
53-70-3	Dibenz(a,h)anthracene	20	U
132-64-9	Dibenzofuran	20	U
84-74-2	Di-n-butyl phthalate	20	U
95-50-1	1,2-Dichlorobenzene	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
91-94-1	3,3'-Dichlorobenzidine	20	U
120-83-2	2,4-Dichlorophenol	20	U

0106

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL Date Received: 11/13/97
Work Order: CE17J102 Date Extracted:11/18/97
Dilution factor: 2 Date Analyzed: 11/26/97
Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-06

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q	
84-66-2	**Diethyl phthalate**	3.5	J	
105-67-9	2,4-Dimethylphenol	20		U
131-11-3	Dimethyl phthalate	20		U
117-84-0	Di-n-octyl phthalate	20		U
534-52-1	4,6-Dinitro-2-methylphenol	50		U
51-28-5	2,4-Dinitrophenol	50		U
121-14-2	2,4-Dinitrotoluene	20		U
606-20-2	2,6-Dinitrotoluene	20		U
206-44-0	Fluoranthene	20		U
86-73-7	Fluorene	20		U
118-74-1	Hexachlorobenzene	20		U
87-68-3	Hexachlorobutadiene	20		U
77-47-4	Hexachlorocyclopentadiene	20		U
67-72-1	Hexachloroethane	20		U
193-39-5	Indeno(1,2,3-cd)pyrene	20		U
78-59-1	Isophorone	20		U
91-57-6	**2-Methylnaphthalene**	72		
95-48-7	2-Methylphenol	~~20~~ 2.4		J U
106-44-5	**4-Methylphenol**	~~2.4~~ 20	J	U
91-20-3	**Naphthalene**	110		
88-74-4	2-Nitroaniline	50		U
99-09-2	3-Nitroaniline	50		U
100-01-6	4-Nitroaniline	50		U
98-95-3	Nitrobenzene	20		U
88-75-5	2-Nitrophenol	20		U
100-02-7	4-Nitrophenol	50		U
621-64-7	N-Nitrosodi-n-propylamine	20		U
86-30-6	N-Nitrosodiphenylamine	20		U

5/1/2/99

0107

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL Date Received: 11/13/97
Work Order: CE17J102 Date Extracted:11/18/97
Dilution factor: 2 Date Analyzed: 11/26/97
Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-06

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	20	U
108-95-2	Phenol	20	U
129-00-0	Pyrene	20	U
120-82-1	1,2,4-Trichlorobenzene	20	U
95-95-4	2,4,5-Trichlorophenol	50	U
88-06-2	2,4,6-Trichlorophenol	20	U
86-74-8	Carbazole	20	U

0108

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17J102
Dilution factor: 2
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/26/97

QC Batch: 7324105

Client Sample Id: FD-GW-06

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
19550-73-3	Trans-3,4-dimethylcyclopenta	3.3645	16	JN
	UNKNOWN SUBSTITUTED BENZENE	3.5073	23	J
	UNKNOWN	3.6073	23	J
103-65-1	Benzene, propyl-	3.7358	65	JN
622-96-8	Benzene, 1-ethyl-4-methyl-	3.7929	51	JN
95-36-3	1,2,4-Trimethylbenzene	3.8428	42	JN
526-73-8	Benzene, 1,2,3-trimethyl-	4.2141	70	JN
	UNKNOWN SUBSTITUTED BENZENE	4.3711	24	J
	UNKNOWN SUBSTITUTED BENZENE	4.5496	42	J
	UNKNOWN	4.7352	33	J
	UNKNOWN SUBSTITUTED BENZENE	4.7923	36	J
	UNKNOWN SUBSTITUTED BENZENE	4.8208	19	J
	UNKNOWN	4.8851	20	J
	UNKNOWN SUBSTITUTED BENZENE	5.035	95	J
	UNKNOWN	5.1706	7.8	J
90-12-0	Naphthalene, 1-methyl-	6.1986	27	JN
	UNKNOWN	6.477	96	J
	UNKNOWM	6.6412	24	J
	UNKNOWN	6.684	35	J
	UNKNOWN	6.8268	17	J
	UNKNOWN	6.9125	31	J
	UNKNOWN	6.9767	20	J
	UNKNOWN	7.041	23	J
	UNKNOWN ACID	7.1123	27	J
	UNKNOWN ACID	7.2194	31	J
	UNKNOWN	7.3122	58	J

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17J102
Dilution factor: 2
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/26/97

QC Batch: 7324105

Client Sample Id: FD-GW-06

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	7.455	34	J
	UNKNOWN	7.7477	42	J
	UNKNOWN	8.0475	24	J
	UNKNOWN	8.4616	32	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17J202
Dilution factor: 1
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/26/97

QC Batch: 7324105

Client Sample Id: FD-GW-06 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L		Q
83-32-9	Acenaphthene		10	U
208-96-8	Acenaphthylene		10	U
120-12-7	Anthracene		10	U
56-55-3	Benzo(a)anthracene		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
191-24-2	Benzo(ghi)perylene		10	U
50-32-8	Benzo(a)pyrene		10	U
111-91-1	bis(2-Chloroethoxy)methane		10	U
111-44-4	bis(2-Chloroethyl) ether		10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)		10	U
117-81-7	bis(2-Ethylhexyl) phthalate		10	U
101-55-3	4-Bromophenyl phenyl ether		10	U
85-68-7	Butyl benzyl phthalate		10	U
106-47-8	4-Chloroaniline		10	U
59-50-7	4-Chloro-3-methylphenol		10	U
91-58-7	2-Chloronaphthalene		10	U
95-57-8	2-Chlorophenol		10	U
7005-72-3	4-Chlorophenyl phenyl ether		10	U
218-01-9	Chrysene		10	U
53-70-3	Dibenz(a,h)anthracene		10	U
132-64-9	Dibenzofuran		10	U
84-74-2	Di-n-butyl phthalate		10	U
95-50-1	1,2-Dichlorobenzene		10	U
541-73-1	1,3-Dichlorobenzene		10	U
106-46-7	1,4-Dichlorobenzene		10	U
91-94-1	3,3'-Dichlorobenzidine		10	U
120-83-2	2,4-Dichlorophenol		10	U

0101

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17J202
Dilution factor: 1
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/26/97

QC Batch: 7324105

Client Sample Id: FD-GW-06 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
84-66-2	**Diethyl phthalate**	**2.5**	**J**
105-67-9	2,4-Dimethylphenol	10	U
131-11-3	Dimethyl phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
51-28-5	2,4-Dinitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
206-44-0	Fluoranthene	10	U
86-73-7	Fluorene	10	U
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	**2-Methylnaphthalene**	**69**	
95-48-7	**2-Methylphenol**	**2.3**	**J**
106-44-5	4-Methylphenol	10	U
91-20-3	**Naphthalene**	**110**	**E**
88-74-4	2-Nitroaniline	25	U
99-09-2	3-Nitroaniline	25	U
100-01-6	4-Nitroaniline	25	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	25	U
621-64-7	N-Nitrosodi-n-propylamine	10	U
86-30-6	N-Nitrosodiphenylamine	10	U

0102

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17J202
Dilution factor: 1
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/26/97

QC Batch: 7324105

Client Sample Id: FD-GW-06 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
88-06-2	2,4,6-Trichlorophenol	10	U
86-74-8	Carbazole	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL Date Received: 11/13/97
Work Order: CE17J202 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/26/97
Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-06 -RE 1

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
13351-73-0	UNKNOWN	7.3678	47	J
1757-42-2	Cyclopentanone, 3-methyl-	2.692	11	JN
19550-73-3	Trans-3,4-dimethylcyclopenta	3.3987	13	JN
98-82-8	Benzene, (1-methylethyl)-	3.5343	15	JN
1191-96-4	UNKNOWN	3.6343	14	J
103-65-1	Benzene, propyl-	3.7628	28	JN
620-14-4	UNKNOWN SUBSTITUTED BENZENE	3.8199	45	J
95-36-3	1,2,4-Trimethylbenzene	3.8698	34	JN
526-73-8	Benzene, 1,2,3-trimethyl-	4.2482	55	JN
1074-43-7	UNKNOWN SUBSTITUTED BENZENE	4.4124	17	J
527-84-4	UNKNOWN SUBSTITUTED BENZENE	4.5908	30	J
95-93-2	UNKNOWN SUBSTITUTED BENZENE	5.0763	14	J
90-12-0	Naphthalene, 1-methyl-	6.2542	8.5	JN
619-04-5	UNKNOWN	6.5326	35	J
5532-86-5	UNKNOWN	6.6753	10	J
91-64-5	UNKNOWN	6.7324	11	J
582-16-1	UNKNOWN SUBSTITUTED NAPHTHAL	6.9752	12	J
571-61-9	UNKNOWN	7.0965	40	J
480-63-7	UNKNOWN ACID	7.1822	8.6	J
54396-45-1	UNKNOWN	7.2393	13	J
97-54-1	UNKNOWN	7.3107	17	J
619-55-6	UNKNOWN	7.5106	17	J
5510-99-6	UNKNOWN	7.8032	16	J
91-21-4	UNKNOWN	7.9389	9.6	J
7340-22-9	UNKNOWN	8.0531	9.5	J
10487-96-4	UNKNOWN	8.1174	22	J

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL Date Received: 11/13/97
Work Order: CE17J202 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/26/97
Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-06 -RE 1

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
931-64-6	UNKNOWN	8.203	8.1	J
102-25-0	UNKNOWN	8.2673	9.5	J
54549-72-3	UNKNOWN	8.5457	28	J
536-66-3	UNKNOWN PHTHALATE	8.7313	7.7	J

0105

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 004
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 11/13/97
Work Order: CE17H101 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-07

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
67-64-1	Acetone	10	U
71-43-2	**Benzene**	**11**	
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	**Ethylbenzene**	**67**	
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	**Toluene**	**12**	

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 004

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL

Date Received: 11/13/97

Work Order: CE17H101

Date Extracted:11/18/97

Dilution factor: 1

Date Analyzed: 11/18/97

Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-07

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-55-6	1,1,1-Trichloroethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	320	

0051

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 004
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 11/13/97
Work Order: CE17H101 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-GW-07

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
611-14-3	benzene, 1-ethyl-2-methyl- o	20.47	110	J
526-73-8	benzene, 1,2,3-trimethyl- or	20.55	81	J
95-36-3	1,2,4-trimethylbenzene or is	21.2	270	J
95-36-3	1,2,4-trimethylbenzene or is	21.93	130	J
0-00-0	unknown benzene	22.2	45	J
527-84-4	benzene, 1-methyl-2-(1-methy	22.32	45	J
1074-55-1	benzene, 1-methyl-4-propyl o	22.6	35	J
2870-04-4	benzene, 2-ethyl-1,3-dimethy	22.77	66	J
2870-04-4	benzene, 2-ethyl-1,3-dimethy	22.9	44	J
0-00-0	unknown	23.08	33	J
0-00-0	unknown	23.22	40	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 004

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL

Date Received: 11/13/97

Work Order: CE17H102

Date Extracted:11/18/97

Dilution factor: 1

Date Analyzed: 11/25/97

Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-07

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
83-32-9	Acenaphthene	10	U
208-96-8	Acenaphthylene	10	U
120-12-7	Anthracene	10	U
56-55-3	Benzo(a)anthracene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
191-24-2	Benzo(ghi)perylene	10	U
50-32-8	Benzo(a)pyrene	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
111-44-4	bis(2-Chloroethyl) ether	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
117-81-7	bis(2-Ethylhexyl) phthalate	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
85-68-7	Butyl benzyl phthalate	10	U
106-47-8	4-Chloroaniline	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-58-7	2-Chloronaphthalene	10	U
95-57-8	2-Chlorophenol	10	U
7005-72-3	4-Chlorophenyl phenyl ether	10	U
218-01-9	Chrysene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
132-64-9	Dibenzofuran	10	U
84-74-2	Di-n-butyl phthalate	10	U
95-50-1	1,2-Dichlorobenzene	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
120-83-2	2,4-Dichlorophenol	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 004
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL Date Received: 11/13/97
Work Order: CE17H102 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/25/97
Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-07

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
84-66-2	Diethyl phthalate	10	U
105-67-9	2,4-Dimethylphenol	10	U
131-11-3	Dimethyl phthalate	10	U
117-84-0	Di-n-octyl phthalate	10	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
51-28-5	2,4-Dinitrophenol	25	U
121-14-2	2,4-Dinitrotoluene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
206-44-0	Fluoranthene	10	U
86-73-7	**Fluorene**	**1.1**	**J**
118-74-1	Hexachlorobenzene	10	U
87-68-3	Hexachlorobutadiene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
67-72-1	Hexachloroethane	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
78-59-1	Isophorone	10	U
91-57-6	**2-Methylnaphthalene**	**62**	
95-48-7	**2-Methylphenol**	**1.6**	**J**
106-44-5	4-Methylphenol	10	U
91-20-3	**Naphthalene**	**79**	
88-74-4	2-Nitroaniline	25	U
99-09-2	3-Nitroaniline	25	U
100-01-6	4-Nitroaniline	25	U
98-95-3	Nitrobenzene	10	U
88-75-5	2-Nitrophenol	10	U
100-02-7	4-Nitrophenol	25	U
621-64-7	N-Nitrosodi-n-propylamine	10	U
86-30-6	N-Nitrosodiphenylamine	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR344

Matrix: (soil/water) WATER

Lab Sample ID:C7K130115 004

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Work Order: CE17H102
Dilution factor: 1
Moisture %:NA

Date Received: 11/13/97
Date Extracted:11/18/97
Date Analyzed: 11/25/97

QC Batch: 7324105

Client Sample Id: FD-GW-07

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
108-95-2	Phenol	10	U
129-00-0	Pyrene	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
88-06-2	2,4,6-Trichlorophenol	10	U
86-74-8	Carbazole	10	

0098

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR344

Matrix: (soil/water) WATER Lab Sample ID:C7K130115 004
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL Date Received: 11/13/97
Work Order: CE17H102 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/25/97
Moisture %:NA

QC Batch: 7324105

Client Sample Id: FD-GW-07

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN SUBSTITUTED BENZENE	3.8262	42	J
95-36-3	1,2,4-Trimethylbenzene	3.8762	30	JN
98-82-8	Benzene, (1-methylethyl)-	3.5407	12	JN
	UNKNOWN	3.6406	11	J
103-65-1	Benzene, propyl-	3.762	28	JN
526-73-8	Benzene, 1,2,3-trimethyl-	4.2474	52	JN
	UNKNOWN SUBSTITUTED BENZENE	4.4116	19	J
	UNKNOWN SUBSTITUTED BENZENE	4.5901	26	J
	UNKNOWN SUBSTITUTED BENZENE	4.7685	15	J
	UNKNOWN SUBSTITUTED BENZENE	4.8328	22	J
	UNKNOWN	4.9256	12	J
	UNKNOWN SUBSTITUTED BENZENE	5.0826	57	J
	UNKNOWN	5.2325	4.4	J
	UNKNOWN	5.5109	4.2	J
	UNKNOWN	5.6965	2.5	J
	UNKNOWN	5.8393	3.7	J
	UNKNOWN	5.8679	2.6	J
	UNKNOWN	5.9892	4.2	J
90-12-0	Naphthalene, 1-methyl-	6.2534	5.7	JN
	UNKNOWN	6.4889	16	J
	UNKNOWN	6.5318	16	J
	UNKNOWN	6.7317	22	J
	UNKNOWN SUBSTITUTED NAPHTHAL	6.9672	13	J
	UNKNOWN SUBSTITUTED BENZENE	7.0957	35	J
	UNKNOWN	7.2385	22	J
	UNKNOWN	7.8524	28	J

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: QUANTERRA
SDG Number: BR344

Matrix: (soil/water) WATER
Lab Sample ID: C7K130115 004
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 1000 / mL
Date Received: 11/13/97
Work Order: CE17H102
Date Extracted: 11/18/97
Dilution factor: 1
Date Analyzed: 11/25/97
Moisture %: NA

QC Batch: 7324105

Client Sample Id: FD-GW-07

(ug/L or ug/kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	8.1166	28	J
	UNKNOWN	8.5877	24	J
10544-50-0	Sulfur, mol. (s8)	12.349	10	JN

0100

A.2
GROUNDWATER FROM PERMANENT MONITORING WELL

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR323

Matrix: (soil/water) WATER Lab Sample ID:C7F270122 020
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 06/27/97
Work Order: CADG4101 Date Extracted:07/01/97
Date Analyzed: 07/01/97

QC Batch: 7183134

Client Sample Id: FD-MW07-062597

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	**Chloroform**	**1.2**	**J**
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR323

Matrix: (soil/water) WATER Lab Sample ID:C7F270122 020
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 06/27/97
Work Order: CADG4101 Date Extracted:07/01/97
Date Analyzed: 07/01/97

QC Batch: 7183134

Client Sample Id: FD-MW07-062597

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

0050

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR323

Matrix: (soil/water) WATER Lab Sample ID:C7F270122 020
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 06/27/97
Work Order: CADG4101 Date Extracted:07/01/97
Date Analyzed: 07/01/97

QC Batch: 7183134

Client Sample Id: FD-MW07-062597

		(ug/L or ug/kg) ug/L		
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	no tics detected			ND

0051

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR345

Matrix: (soil/water) WATER

Lab Sample ID:C7K150106 006

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL
Work Order: CE2ML101
Dilution factor: 1
Moisture %:NA

Date Received: 11/15/97
Date Extracted:11/18/97
Date Analyzed: 11/18/97

QC Batch: 7322109

Client Sample Id: FD-MW07

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	**Tetrachloroethene**	**4.2**	**J**
108-88-3	Toluene	10	U

0029

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR345

Matrix: (soil/water) WATER

Lab Sample ID:C7K150106 006

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL
Work Order: CE2ML101
Dilution factor: 1
Moisture %:NA

Date Received: 11/15/97
Date Extracted:11/18/97
Date Analyzed: 11/18/97

QC Batch: 7322109

Client Sample Id: FD-MW07

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/L	Q
71-55-6	**1,1,1-Trichloroethane**	**2.0**	**J**
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

0030

FORM I

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR345

Matrix: (soil/water) WATER Lab Sample ID:C7K150106 006
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / mL Date Received: 11/15/97
Work Order: CE2ML101 Date Extracted:11/18/97
Dilution factor: 1 Date Analyzed: 11/18/97
Moisture %:NA

QC Batch: 7322109

Client Sample Id: FD-MW07

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L or ug/kg) ug/L	Q
	no tics detected			ND

0031

A.3
SOIL BORINGS

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR333

Matrix: (soil/water) SOLID Lab Sample ID:C7H180107 002
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/16/97
Work Order: CCAJ0103 Date Extracted:08/19/97
Dilution factor: 1 Date Analyzed: 08/19/97
Moisture %:9.6

QC Batch: 7231123

Client Sample Id: T1-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
78-93-3	2-Butanone	11	U
75-15-0	Carbon disulfide	11	U
56-23-5	Carbon tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
124-48-1	Dibromochloromethane	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
75-34-3	1,1-Dichloroethane	11	U
107-06-2	1,2-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
100-41-4	Ethylbenzene	11	U
591-78-6	2-Hexanone	11	U
75-09-2	Methylene chloride	11	U
108-10-1	4-Methyl-2-pentanone	11	U
100-42-5	Styrene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
127-18-4	Tetrachloroethene	11	U
108-88-3	Toluene	11	U
71-55-6	1,1,1-Trichloroethane	11	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID:C7H180107 002

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCAJ0103
Dilution factor: 1
Moisture %:9.6

Date Received: 08/16/97
Date Extracted:08/19/97
Date Analyzed: 08/19/97

QC Batch: 7231123

Client Sample Id: T1-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	11	U
79-01-6	Trichloroethene	11	U
75-01-4	Vinyl chloride	11	U
1330-20-7	Xylenes (total)	11	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID: C7H180107 002

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCAJ0103
Dilution factor: 1
Moisture %: 9.6

Date Received: 08/16/97
Date Extracted: 08/19/97
Date Analyzed: 08/19/97

QC Batch: 7231123

Client Sample Id: T1-SB01-1517

		(ug/L or ug/kg) ug/kg		
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	no tics detected			ND

BROWN & ROOT ENVIRONMENTAL

Lab Name: QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID: C7H180107 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCAJ0101
Dilution factor: 4
Moisture %: 9.6

Date Received: 08/16/97
Date Extracted: 08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T1-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	1500	U
208-96-8	Acenaphthylene	1500	U
120-12-7	Anthracene	1500	U
56-55-3	**Benzo(a)anthracene**	**3300**	
205-99-2	**Benzo(b)fluoranthene**	**1700**	
207-08-9	**Benzo(k)fluoranthene**	**1700**	
191-24-2	**Benzo(ghi)perylene**	**1100**	**J**
50-32-8	**Benzo(a)pyrene**	**2200**	
111-91-1	bis(2-Chloroethoxy)methane	1500	U
111-44-4	bis(2-Chloroethyl) ether	1500	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1500	U
117-81-7	bis(2-Ethylhexyl) phthalate	1500	U
101-55-3	4-Bromophenyl phenyl ether	1500	U
85-68-7	Butyl benzyl phthalate	1500	U
106-47-8	4-Chloroaniline	1500	U
59-50-7	4-Chloro-3-methylphenol	1500	U
91-58-7	2-Chloronaphthalene	1500	U
95-57-8	2-Chlorophenol	1500	U
7005-72-3	4-Chlorophenyl phenyl ether	1500	U
218-01-9	**Chrysene**	**3100**	
53-70-3	Dibenz(a,h)anthracene	1500	U
132-64-9	Dibenzofuran	1500	U
84-74-2	Di-n-butyl phthalate	1500	U
95-50-1	1,2-Dichlorobenzene	1500	U
541-73-1	1,3-Dichlorobenzene	1500	U
106-46-7	1,4-Dichlorobenzene	1500	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
120-83-2	2,4-Dichlorophenol	1500	U
84-66-2	Diethyl phthalate	1500	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID:C7H180107 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCAJ0101
Dilution factor: 4
Moisture %:9.6

Date Received: 08/16/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T1-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	1500	U
131-11-3	Dimethyl phthalate	1500	U
117-84-0	Di-n-octyl phthalate	1500	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
51-28-5	2,4-Dinitrophenol	3700	U
121-14-2	2,4-Dinitrotoluene	1500	U
606-20-2	2,6-Dinitrotoluene	1500	U
206-44-0	**Fluoranthene**	**7400**	
86-73-7	Fluorene	1500	U
118-74-1	Hexachlorobenzene	1500	U
87-68-3	Hexachlorobutadiene	1500	U
77-47-4	Hexachlorocyclopentadiene	1500	U
67-72-1	Hexachloroethane	1500	U
193-39-5	**Indeno(1,2,3-cd)pyrene**	**1400**	**J**
78-59-1	Isophorone	1500	U
91-57-6	2-Methylnaphthalene	1500	U
95-48-7	2-Methylphenol	1500	U
106-44-5	4-Methylphenol	1500	U
91-20-3	Naphthalene	1500	U
88-74-4	2-Nitroaniline	3700	U
99-09-2	3-Nitroaniline	3700	U
100-01-6	4-Nitroaniline	3700	U
98-95-3	Nitrobenzene	1500	U
88-75-5	2-Nitrophenol	1500	U
100-02-7	4-Nitrophenol	3700	U
621-64-7	N-Nitrosodi-n-propylamine	1500	U
86-30-6	N-Nitrosodiphenylamine	1500	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	1500	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID:C7H180107 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCAJ0101
Dilution factor: 4
Moisture %:9.6

Date Received: 08/16/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T1-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	1500	U
129-00-0	**Pyrene**	**10000**	
120-82-1	1,2,4-Trichlorobenzene	1500	U
95-95-4	2,4,5-Trichlorophenol	3700	U
88-06-2	2,4,6-Trichlorophenol	1500	U
86-74-8	Carbazole	1500	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA — SDG Number: BR333

Matrix: (soil/water) SOLID — Lab Sample ID:C7H180107 002
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g — Date Received: 08/16/97
Work Order: CCAJ0101 — Date Extracted:08/28/97
Dilution factor: 4 — Date Analyzed: 09/10/97
Moisture %:9.6

QC Batch: 7250108

Client Sample Id: T1-SB01-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-hydroxy-4-met	2.7479	10000	JBA
	Unknown	3.9184	1200	J
	Unknown	4.4038	3500	J
	Unknown	4.4894	4300	J
	Unknown	4.5322	3900	J
	Unknown	4.6107	5000	J
	Unknown	4.8035	1300	J
	Unknown	4.8534	1800	J
	Unknown	4.9605	1700	J
	Unknown	5.039	1400	J
	Unknown	5.1032	1800	J
	Unknown	5.246	1600	J
	Unknown Branched Alkane	5.4315	4500	J
	Unknown	5.5671	2200	J
	Unknown	5.61	1100	J
	Unknown Branched Alkane	5.767	4500	J
	Unknown Branched Alkane	5.8455	5100	J
	Unknown Straight Alkane	6.0454	5400	J
	Unknown Branched Alkane	6.1167	2000	J
	Unknown Branched Alkane	6.1667	1900	J
	Unknown	6.288	2400	J
	Unknown	6.4165	2600	J
	Unknown	6.5093	2900	J
	Unknown Straight Alkane	6.8305	7100	J
	Unknown Branched Alkane	6.8804	1000	J
	Unknown Branched Alkane	6.9232	1600	J
	Unknown	7.1945	1800	J
	Unknown Branched Alkane	7.3158	2200	J
	Unknown Straight Alkane	9.2571	3000	J
	Unknown Branched Alkane	9.3071	2900	J

BROWN & ROOT ENVIRONMENTAL

Lab Name: QUANTERRA SDG Number: BR333

Matrix: (soil/water) SOLID Lab Sample ID: C7H180107 003
Method: CCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/16/97
Work Order: CCAJ2103 Date Extracted: 08/19/97
Dilution factor: 1 Date Analyzed: 08/19/97
Moisture %: 1.9

QC Batch: 7231123

Client Sample Id: T1-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR333

Matrix: (soil/water) SOLID Lab Sample ID:C7H180107 003
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/16/97
Work Order: CCAJ2103 Date Extracted:08/19/97
Dilution factor: 1 Date Analyzed: 08/19/97
Moisture %:1.9

QC Batch: 7231123

Client Sample Id: T1-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID: C7H180107 003

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCAJ2103
Dilution factor: 1
Moisture %: 1.9

Date Received: 08/16/97
Date Extracted: 08/19/97
Date Analyzed: 08/19/97

QC Batch: 7231123

Client Sample Id: T1-SB02-1517

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L or ug/kg) ug/kg	Q
	no tics detected			ND

Lab Name:QUANTERRA SDG Number: BR333

Matrix: (soil/water) SOLID Lab Sample ID:C7H180107 003
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/16/97
Work Order: CCAJ2101 Date Extracted:08/28/97
Dilution factor: 2 Date Analyzed: 09/10/97
Moisture %:1.9

QC Batch: 7250108

Client Sample Id: T1-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	670	U
208-96-8	Acenaphthylene	670	U
120-12-7	**Anthracene**	**610**	**J**
56-55-3	**Benzo(a)anthracene**	**1500**	
205-99-2	**Benzo(b)fluoranthene**	**760**	
207-08-9	**Benzo(k)fluoranthene**	**700**	
191-24-2	**Benzo(ghi)perylene**	**560**	**J**
50-32-8	**Benzo(a)pyrene**	**990**	
111-91-1	bis(2-Chloroethoxy)methane	670	U
111-44-4	bis(2-Chloroethyl) ether	670	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	670	U
117-81-7	bis(2-Ethylhexyl) phthalate	670	U
101-55-3	4-Bromophenyl phenyl ether	670	U
85-68-7	Butyl benzyl phthalate	670	U
106-47-8	4-Chloroaniline	670	U
59-50-7	4-Chloro-3-methylphenol	670	U
91-58-7	2-Chloronaphthalene	670	U
95-57-8	2-Chlorophenol	670	U
7005-72-3	4-Chlorophenyl phenyl ether	670	U
218-01-9	**Chrysene**	**1600**	
53-70-3	Dibenz(a,h)anthracene	670	U
132-64-9	Dibenzofuran	670	U
84-74-2	Di-n-butyl phthalate	670	U
95-50-1	1,2-Dichlorobenzene	670	U
541-73-1	1,3-Dichlorobenzene	670	U
106-46-7	1,4-Dichlorobenzene	670	U
91-94-1	3,3'-Dichlorobenzidine	670	U
120-83-2	2,4-Dichlorophenol	670	U
84-66-2	Diethyl phthalate	670	U

BROWN & ROOT ENVIRONMENTAL

Lab Name: QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID: C7H180107 003

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCAJ2101
Dilution factor: 2
Moisture %: 1.9

Date Received: 08/16/97
Date Extracted: 08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T1-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	670	U
131-11-3	Dimethyl phthalate	670	U
117-84-0	Di-n-octyl phthalate	670	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
51-28-5	2,4-Dinitrophenol	1700	U
121-14-2	2,4-Dinitrotoluene	670	U
606-20-2	2,6-Dinitrotoluene	670	U
206-44-0	**Fluoranthene**	**4200**	
86-73-7	**Fluorene**	**180**	**J**
118-74-1	Hexachlorobenzene	670	U
87-68-3	Hexachlorobutadiene	670	U
77-47-4	Hexachlorocyclopentadiene	670	U
67-72-1	Hexachloroethane	670	U
193-39-5	**Indeno(1,2,3-cd)pyrene**	**650**	**J**
78-59-1	Isophorone	670	U
91-57-6	2-Methylnaphthalene	670	U
95-48-7	2-Methylphenol	670	U
106-44-5	4-Methylphenol	670	U
91-20-3	Naphthalene	670	U
88-74-4	2-Nitroaniline	1700	U
99-09-2	3-Nitroaniline	1700	U
100-01-6	4-Nitroaniline	1700	U
98-95-3	Nitrobenzene	670	U
88-75-5	2-Nitrophenol	670	U
100-02-7	4-Nitrophenol	1700	U
621-64-7	N-Nitrosodi-n-propylamine	670	U
86-30-6	N-Nitrosodiphenylamine	670	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	**Phenanthrene**	**870**	

Lab Name: QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID: C7H180107 003

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g

Date Received: 08/16/97

Work Order: CCAJ2101

Date Extracted: 08/28/97

Dilution factor: 2

Date Analyzed: 09/10/97

Moisture %: 1.9

QC Batch: 7250108

Client Sample Id: T1-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	670	U
129-00-0	**Pyrene**	**3400**	
120-82-1	1,2,4-Trichlorobenzene	670	U
95-95-4	2,4,5-Trichlorophenol	1700	U
88-06-2	2,4,6-Trichlorophenol	670	U
86-74-8	**Carbazole**	**120**	**J**

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: QUANTERRA SDG Number: BR333

Matrix: (soil/water) SOLID Lab Sample ID: C7H180107 003
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1

Sample WT/Vol: 30 / g Date Received: 08/16/97
Work Order: CCAJ2101 Date Extracted: 08/28/97
Dilution factor: 2 Date Analyzed: 09/10/97
Moisture %: 1.9

QC Batch: 7250108

Client Sample Id: T1-SB02-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-Hydroxy-4-Meth	2.7999	8300	JBA
	Unknown Branched Alkane	3.328	640	J
	Unknown Branched Alkane	3.6207	1100	J
	Unknown Branched Alkane	3.6778	950	J
	Unknown Branched Alkane	3.8419	4000	J
	Unknown Branched Alkane	3.8919	1400	J
	Unknown Branched Alkane	4.2487	2600	J
	Unknown	4.4914	7100	J
	Unknown Straight Alkane	4.7412	18000	J
	Unknown Branched Alkane	4.8197	240	J
	Unknown	4.884	290	J
	Unknownxanehexanol	4.9839	250	J
	Unknown Branched Alkane	5.0553	250	J
	Unknown Substituted Benzene	5.1195	500	J
	Unknown Straight Alkane	5.4121	550	J
	Unknown	5.8832	490	J
	Unknown Straight Alkane	6.0973	1400	J
	Unknown	6.3328	220	J
	Unknown Cyclo Alkane	6.4399	330	J
	Unknown Branched Alkane	6.5327	760	J
	Unknown Straight Alkane	6.8539	3000	J
	Unknown	6.9038	290	J
	Unknown Branched Alkane	6.9324	350	J
	Unknown	7.2036	540	J
	Unknown Cyclohexane	7.2607	320	J
	Unknown Branched Alkane	7.3249	860	J
	Unknown	7.9958	240	J
	Unknown Branched Alkane	8.4384	430	J
	Unknown Branched Alkane	9.2592	1500	J
	Unknown Branched Alkane	9.3091	1700	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID:C7H180107 004

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCAJ3103
Dilution factor: 1
Moisture %:4.6

Date Received: 08/16/97
Date Extracted:08/19/97
Date Analyzed: 08/19/97

QC Batch: 7231123

Client Sample Id: T1-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID:C7H180107 004

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCAJ3103
Dilution factor: 1
Moisture %:4.6

Date Received: 08/16/97
Date Extracted:08/19/97
Date Analyzed: 08/19/97

QC Batch: 7231123

Client Sample Id: T1-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID: C7H180107 004

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCAJ3103
Dilution factor: 1
Moisture %: 4.6

Date Received: 08/16/97
Date Extracted: 08/19/97
Date Analyzed: 08/19/97

QC Batch: 7231123

Client Sample Id: T1-SB03-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	no tics detected			ND

FORM I - TIC

BROWN & ROOT ENVIRONMENTAL

Lab Name: QUANTERRA SDG Number: BR333

Matrix: (soil/water) SOLID Lab Sample ID: C7H180107 004
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/16/97
Work Order: CCAJ3101 Date Extracted: 08/28/97
Dilution factor: 5 Date Analyzed: 09/10/97
Moisture %: 4.6

QC Batch: 7250108

Client Sample Id: T1-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	1700	U
208-96-8	Acenaphthylene	1700	U
120-12-7	**Anthracene**	**310**	**J**
56-55-3	**Benzo(a)anthracene**	**2000**	
205-99-2	**Benzo(b)fluoranthene**	**1200**	**J**
207-08-9	**Benzo(k)fluoranthene**	**920**	**J**
191-24-2	**Benzo(ghi)perylene**	**720**	**J**
50-32-8	**Benzo(a)pyrene**	**1400**	**J**
111-91-1	bis(2-Chloroethoxy)methane	1700	U
111-44-4	bis(2-Chloroethyl) ether	1700	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	1700	U
117-81-7	bis(2-Ethylhexyl) phthalate	1700	U
101-55-3	4-Bromophenyl phenyl ether	1700	U
85-68-7	Butyl benzyl phthalate	1700	U
106-47-8	4-Chloroaniline	1700	U
59-50-7	4-Chloro-3-methylphenol	1700	U
91-58-7	2-Chloronaphthalene	1700	U
95-57-8	2-Chlorophenol	1700	U
7005-72-3	4-Chlorophenyl phenyl ether	1700	U
218-01-9	**Chrysene**	**2100**	
53-70-3	Dibenz(a,h)anthracene	1700	U
132-64-9	Dibenzofuran	1700	U
84-74-2	Di-n-butyl phthalate	1700	U
95-50-1	1,2-Dichlorobenzene	1700	U
541-73-1	1,3-Dichlorobenzene	1700	U
106-46-7	1,4-Dichlorobenzene	1700	U
91-94-1	3,3'-Dichlorobenzidine	1700	U
120-83-2	2,4-Dichlorophenol	1700	U
84-66-2	Diethyl phthalate	1700	U

BROWN & ROOT ENVIRONMENTAL

Lab Name: QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID: C7H180107 004

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCAJ3101
Dilution factor: 5
Moisture %: 4.6

Date Received: 08/16/97
Date Extracted: 08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T1-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	1700	U
131-11-3	Dimethyl phthalate	1700	U
117-84-0	Di-n-octyl phthalate	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	4300	U
51-28-5	2,4-Dinitrophenol	4300	U
121-14-2	2,4-Dinitrotoluene	1700	U
606-20-2	2,6-Dinitrotoluene	1700	U
206-44-0	**Fluoranthene**	**4600**	
86-73-7	Fluorene	1700	U
118-74-1	Hexachlorobenzene	1700	U
87-68-3	Hexachlorobutadiene	1700	U
77-47-4	Hexachlorocyclopentadiene	1700	U
67-72-1	Hexachloroethane	1700	U
193-39-5	**Indeno(1,2,3-cd)pyrene**	**860**	**J**
78-59-1	Isophorone	1700	U
[illegible]-57-6	2-Methylnaphthalene	1700	U
[illegible]-48-7	2-Methylphenol	1700	U
[illegible]-44-5	4-Methylphenol	1700	U
[illegible]-3	Naphthalene	1700	U
[illegible]-4	2-Nitroaniline	4300	U
[illegible]-2	3-Nitroaniline	4300	U
[illegible]-6	4-Nitroaniline	4300	U
[illegible]-3	Nitrobenzene	1700	U
[illegible]-75	2-Nitrophenol	1700	U
[illegible]-7	4-Nitrophenol	4300	U
621-64-7	N-Nitrosodi-n-propylamine	1700	U
[illegible]-6	N-Nitrosodiphenylamine	1700	U
[illegible]-5	Pentachlorophenol	4300	U
85-01-8	**Phenanthrene**	**250**	**J**

Lab Name: QUANTERRA

SDG Number: BR333

Matrix: (soil/water) SOLID

Lab Sample ID: C7H180107 004

Method: CCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g

Date Received: 08/16/97

Work Order: CCAJ3101

Date Extracted: 08/28/97

Dilution factor: 5

Date Analyzed: 09/10/97

Moisture %: 4.6

QC Batch: 7250108

Client Sample Id: T1-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	1700	U
129-00-0	**Pyrene**	**4900**	
120-82-1	1,2,4-Trichlorobenzene	1700	U
95-95-4	2,4,5-Trichlorophenol	4300	U
88-06-2	2,4,6-Trichlorophenol	1700	U
86-74-8	Carbazole	1700	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: QUANTERRA
SDG Number: BR333

Matrix: (soil/water) SOLID
Lab Sample ID: C7H180107 004
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCAJ3101
Dilution factor: 5
Moisture %: 4.6

Date Received: 08/16/97
Date Extracted: 08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T1-SB03-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-hydroxy-4-met	2.7473	11000	JBA
	Unknown Branched Alkane	3.6181	1900	J
	Unknown Branched Alkane	3.6752	2100	J
	Unknown Cyclo Alkane	3.8037	5200	J
	Unknown Cyclo Alkane	3.925	1500	J
	Unknown	4.4317	4100	J
	Unknown	4.496	4200	J
	Unknown	4.5388	2700	J
	Unknown	4.8671	600	J
	Unknown Branched Alkane	5.4024	920	J
	Unknown Branched Alkane	5.745	840	J
	Unknown	5.7736	540	J
	Unknown Branched Alkane	5.8521	1200	J
	Unknown Branched Alkane	5.8806	910	J
	Unknown Straight Alkane	6.0876	4800	J
	Unknown Branched Alkane	6.1376	760	J
	Unknown Branched Alkane	6.1733	710	J
	Unknown	6.316	700	J
	Unknown	6.4302	1200	J
	Unknown Branched Alkane	6.523	2000	J
	Unknown Branched Alkane	6.8442	6400	J
	Unknown Branched Alkane	6.8941	850	J
	Unknown Branched Alkane	6.9298	900	J
	Unknown	7.201	1300	J
	Unknown Cyclo Alkane	7.2581	690	J
	Unknown Branched Alkane	7.3224	2300	J
	Unknown Branched Alkane	7.979	530	J
	Unknown Straight Alkane	8.4429	1100	J
	Unknown Branched Alkane	8.8355	510	J
	Unknown Branched Alkane	9.2637	3300	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 001

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR1103
Dilution factor: 1
Moisture %:5.4

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
78-93-3	2-Butanone	11	U
75-15-0	Carbon disulfide	11	U
56-23-5	Carbon tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
124-48-1	Dibromochloromethane	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
75-34-3	1,1-Dichloroethane	11	U
107-06-2	1,2-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
100-41-4	Ethylbenzene	11	U
591-78-6	2-Hexanone	11	U
75-09-2	Methylene chloride	11	U
108-10-1	4-Methyl-2-pentanone	11	U
100-42-5	Styrene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
127-18-4	Tetrachloroethene	11	U
108-88-3	**Toluene**	3.7	J
71-55-6	1,1,1-Trichloroethane	11	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 001

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR1103
Dilution factor: 1
Moisture %:5.4

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	11	U
79-01-6	Trichloroethene	11	U
75-01-4	Vinyl chloride	11	U
1330-20-7	Xylenes (total)	11	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 001

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR1103
Dilution factor: 1
Moisture %:5.4

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB01-1517

CAS NUMBER	COMPOUND NAME (ug/L or ug/kg)	RT	EST. CONC. ug/kg	Q
	NO TICS DETECTED			ND

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 001

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR1101
Dilution factor: 1
Moisture %:5.4

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/11/97

QC Batch: 7250108

Client Sample Id: T2-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	350	U
208-96-8	Acenaphthylene	350	U
120-12-7	Anthracene	350	U
56-55-3	**Benzo(a)anthracene**	**100**	**J**
205-99-2	**Benzo(b)fluoranthene**	**430**	
207-08-9	**Benzo(k)fluoranthene**	**250**	**J**
191-24-2	**Benzo(ghi)perylene**	**190**	**J**
50-32-8	**Benzo(a)pyrene**	**500**	
111-91-1	bis(2-Chloroethoxy)methane	350	U
111-44-4	bis(2-Chloroethyl) ether	350	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	350	U
117-81-7	bis(2-Ethylhexyl) phthalate	350	U
101-55-3	4-Bromophenyl phenyl ether	350	U
85-68-7	Butyl benzyl phthalate	350	U
106-47-8	4-Chloroaniline	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-58-7	2-Chloronaphthalene	350	U
95-57-8	2-Chlorophenol	350	U
7005-72-3	4-Chlorophenyl phenyl ether	350	U
218-01-9	**Chrysene**	**410**	
53-70-3	Dibenz(a,h)anthracene	350	U
132-64-9	Dibenzofuran	350	U
84-74-2	Di-n-butyl phthalate	350	U
95-50-1	1,2-Dichlorobenzene	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
91-94-1	3,3'-Dichlorobenzidine	350	U
120-83-2	2,4-Dichlorophenol	350	U
84-66-2	Diethyl phthalate	350	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR334

Matrix: (soil/water) SOLID Lab Sample ID:C7H200116 001
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/20/97
Work Order: CCCR1101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/11/97
Moisture %:5.4

QC Batch: 7250108

Client Sample Id: T2-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	350	U
131-11-3	Dimethyl phthalate	350	U
117-84-0	Di-n-octyl phthalate	350	U
534-52-1	4,6-Dinitro-2-methylphenol	880	U
51-28-5	2,4-Dinitrophenol	880	U
121-14-2	2,4-Dinitrotoluene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
206-44-0	**Fluoranthene**	**130**	**J**
86-73-7	Fluorene	350	U
118-74-1	Hexachlorobenzene	350	U
87-68-3	Hexachlorobutadiene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
67-72-1	Hexachloroethane	350	U
193-39-5	**Indeno(1,2,3-cd)pyrene**	**250**	**J**
78-59-1	Isophorone	350	U
91-57-6	2-Methylnaphthalene	350	U
95-48-7	2-Methylphenol	350	U
106-44-5	4-Methylphenol	350	U
91-20-3	Naphthalene	350	U
88-74-4	2-Nitroaniline	880	U
99-09-2	3-Nitroaniline	880	U
100-01-6	4-Nitroaniline	880	U
98-95-3	Nitrobenzene	350	U
88-75-5	2-Nitrophenol	350	U
100-02-7	4-Nitrophenol	880	U
621-64-7	N-Nitrosodi-n-propylamine	350	U
86-30-6	N-Nitrosodiphenylamine	350	U
87-86-5	Pentachlorophenol	880	U
85-01-8	Phenanthrene	350	U

BROWN & ROOT ENVIRONMENTAL

Lab Name: QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID: C7H200116 001

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR1101
Dilution factor: 1
Moisture %: 5.4

Date Received: 08/20/97
Date Extracted: 08/28/97
Date Analyzed: 09/11/97

QC Batch: 7250108

Client Sample Id: T2-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	350	U
129-00-0	**Pyrene**	**120**	**J**
120-82-1	1,2,4-Trichlorobenzene	350	U
95-95-4	2,4,5-Trichlorophenol	880	U
88-06-2	2,4,6-Trichlorophenol	350	U
86-74-8	Carbazole	350	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR334

Matrix: (soil/water) SOLID Lab Sample ID:C7H200116 001
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/20/97
Work Order: CCCR1101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/11/97
Moisture %:5.4

QC Batch: 7250108

Client Sample Id: T2-SB01-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-Hydroxy-4-Met	2.8833	24000	JBA
	Unknown Branched Alkane	2.8976	1100	J
	Unknown	10.613	77	J
	Unknown	10.762	97	J
57-10-3	Hexadecanoic acid	11.326	270	JB
	Unknown PAH	14.731	80	J
	Unknown PAH	15.559	75	J
	Unknown	16.458	160	J
	Unknown PAH	17.3	120	J
192-97-2	Benzo[e]pyrene	17.586	390	J
	Unknown PAH	19.263	110	J
	Unknown	21.611	460	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 002

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR2103
Dilution factor: 1
Moisture %:8.0

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
78-93-3	2-Butanone	11	U
75-15-0	Carbon disulfide	11	U
56-23-5	Carbon tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
124-48-1	Dibromochloromethane	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
75-34-3	1,1-Dichloroethane	11	U
107-06-2	1,2-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
100-41-4	Ethylbenzene	11	U
591-78-6	2-Hexanone	11	U
75-09-2	Methylene chloride	11	U
108-10-1	4-Methyl-2-pentanone	11	U
100-42-5	Styrene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
127-18-4	Tetrachloroethene	11	U
108-88-3	Toluene	11	U
71-55-6	1,1,1-Trichloroethane	11	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR334

Matrix: (soil/water) SOLID Lab Sample ID:C7H200116 002
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/20/97
Work Order: CCCR2103 Date Extracted:08/21/97
Dilution factor: 1 Date Analyzed: 08/21/97
Moisture %:8.0

QC Batch: 7233185

Client Sample Id: T2-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	11	U
79-01-6	Trichloroethene	11	U
75-01-4	Vinyl chloride	11	U
1330-20-7	Xylenes (total)	11	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 002

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR2103
Dilution factor: 1
Moisture %:8.0

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB02-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR2101
Dilution factor: 1
Moisture %:8.0

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	360	U
208-96-8	Acenaphthylene	360	U
120-12-7	Anthracene	360	U
56-55-3	Benzo(a)anthracene	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
191-24-2	Benzo(ghi)perylene	360	U
50-32-8	Benzo(a)pyrene	360	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
111-44-4	bis(2-Chloroethyl) ether	360	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	360	U
117-81-7	bis(2-Ethylhexyl) phthalate	360	U
101-55-3	4-Bromophenyl phenyl ether	360	U
85-68-7	Butyl benzyl phthalate	360	U
106-47-8	4-Chloroaniline	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-58-7	2-Chloronaphthalene	360	U
95-57-8	2-Chlorophenol	360	U
7005-72-3	4-Chlorophenyl phenyl ether	360	U
218-01-9	Chrysene	360	U
53-70-3	Dibenz(a,h)anthracene	360	U
132-64-9	Dibenzofuran	360	U
84-74-2	Di-n-butyl phthalate	360	U
95-50-1	1,2-Dichlorobenzene	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
91-94-1	3,3'-Dichlorobenzidine	360	U
120-83-2	2,4-Dichlorophenol	360	U
84-66-2	Diethyl phthalate	360	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR2101
Dilution factor: 1
Moisture %:8.0

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	360	U
131-11-3	Dimethyl phthalate	360	U
117-84-0	Di-n-octyl phthalate	360	U
534-52-1	4,6-Dinitro-2-methylphenol	900	U
51-28-5	2,4-Dinitrophenol	900	U
121-14-2	2,4-Dinitrotoluene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
206-44-0	Fluoranthene	360	U
86-73-7	Fluorene	360	U
118-74-1	Hexachlorobenzene	360	U
87-68-3	Hexachlorobutadiene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
67-72-1	Hexachloroethane	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
78-59-1	Isophorone	360	U
91-57-6	2-Methylnaphthalene	360	U
95-48-7	2-Methylphenol	360	U
106-44-5	4-Methylphenol	360	U
91-20-3	Naphthalene	360	U
88-74-4	2-Nitroaniline	900	U
99-09-2	3-Nitroaniline	900	U
100-01-6	4-Nitroaniline	900	U
98-95-3	Nitrobenzene	360	U
88-75-5	2-Nitrophenol	360	U
100-02-7	4-Nitrophenol	900	U
621-64-7	N-Nitrosodi-n-propylamine	360	U
86-30-6	N-Nitrosodiphenylamine	360	U
87-86-5	Pentachlorophenol	900	U
85-01-8	Phenanthrene	360	U

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR2101
Dilution factor: 1
Moisture %:8.0

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	360	U
129-00-0	Pyrene	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
95-95-4	2,4,5-Trichlorophenol	900	U
88-06-2	2,4,6-Trichlorophenol	360	U
86-74-8	Carbazole	360	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR2101
Dilution factor: 1
Moisture %:8.0

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB02-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-hydroxy-4-met	2.8834	21000	JBA
57-10-3	Hexadecanoic acid	11.405	210	JB

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR334

Matrix: (soil/water) SOLID Lab Sample ID:C7H200116 003
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/20/97
Work Order: CCCR4103 Date Extracted:08/21/97
Dilution factor: 1 Date Analyzed: 08/21/97
Moisture %:6.9

QC Batch: 7233185

Client Sample Id: T2-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
78-93-3	2-Butanone	11	U
75-15-0	Carbon disulfide	11	U
56-23-5	Carbon tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
124-48-1	Dibromochloromethane	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
75-34-3	1,1-Dichloroethane	11	U
107-06-2	1,2-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
100-41-4	Ethylbenzene	11	U
591-78-6	2-Hexanone	11	U
75-09-2	Methylene chloride	11	U
108-10-1	4-Methyl-2-pentanone	11	U
100-42-5	Styrene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
127-18-4	Tetrachloroethene	11	U
108-88-3	Toluene	11	U
71-55-6	1,1,1-Trichloroethane	11	U

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 003

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR4103
Dilution factor: 1
Moisture %:6.9

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	11	U
79-01-6	Trichloroethene	11	U
75-01-4	Vinyl chloride	11	U
1330-20-7	Xylenes (total)	11	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 003

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR4103
Dilution factor: 1
Moisture %:6.9

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB03-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 003

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR4101
Dilution factor: 1
Moisture %:6.9

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	350	U
208-96-8	Acenaphthylene	350	U
120-12-7	Anthracene	350	U
56-55-3	Benzo(a)anthracene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
191-24-2	Benzo(ghi)perylene	350	U
50-32-8	Benzo(a)pyrene	350	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
111-44-4	bis(2-Chloroethyl) ether	350	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	350	U
117-81-7	bis(2-Ethylhexyl) phthalate	350	U
101-55-3	4-Bromophenyl phenyl ether	350	U
85-68-7	Butyl benzyl phthalate	350	U
106-47-8	4-Chloroaniline	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-58-7	2-Chloronaphthalene	350	U
95-57-8	2-Chlorophenol	350	U
7005-72-3	4-Chlorophenyl phenyl ether	350	U
218-01-9	Chrysene	350	U
53-70-3	Dibenz(a,h)anthracene	350	U
132-64-9	Dibenzofuran	350	U
84-74-2	Di-n-butyl phthalate	350	U
95-50-1	1,2-Dichlorobenzene	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
91-94-1	3,3'-Dichlorobenzidine	350	U
120-83-2	2,4-Dichlorophenol	350	U
84-66-2	Diethyl phthalate	350	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 003

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR4101
Dilution factor: 1
Moisture %:6.9

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	350	U
131-11-3	Dimethyl phthalate	350	U
117-84-0	Di-n-octyl phthalate	350	U
534-52-1	4,6-Dinitro-2-methylphenol	890	U
51-28-5	2,4-Dinitrophenol	890	U
121-14-2	2,4-Dinitrotoluene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
206-44-0	Fluoranthene	350	U
86-73-7	Fluorene	350	U
118-74-1	Hexachlorobenzene	350	U
87-68-3	Hexachlorobutadiene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
67-72-1	Hexachloroethane	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
78-59-1	Isophorone	350	U
91-57-6	2-Methylnaphthalene	350	U
95-48-7	2-Methylphenol	350	U
106-44-5	4-Methylphenol	350	U
91-20-3	Naphthalene	350	U
88-74-4	2-Nitroaniline	890	U
99-09-2	3-Nitroaniline	890	U
100-01-6	4-Nitroaniline	890	U
98-95-3	Nitrobenzene	350	U
88-75-5	2-Nitrophenol	350	U
100-02-7	4-Nitrophenol	890	U
621-64-7	N-Nitrosodi-n-propylamine	350	U
86-30-6	N-Nitrosodiphenylamine	350	U
87-86-5	Pentachlorophenol	890	U
85-01-8	Phenanthrene	350	U

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 003

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR4101
Dilution factor: 1
Moisture %:6.9

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	350	U
129-00-0	Pyrene	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
95-95-4	2,4,5-Trichlorophenol	890	U
88-06-2	2,4,6-Trichlorophenol	350	U
86-74-8	Carbazole	350	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 003

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR4101
Dilution factor: 1
Moisture %:6.9

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB03-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
000123-42-2	2-Pentanone, 4-Hydroxy-4-Met	2.8763	21000	JBA
57-10-3	Hexadecanoic acid	11.405	280	JB

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 004

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR5103
Dilution factor: 1
Moisture %:2.1

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 004

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR5103
Dilution factor: 1
Moisture %:2.1

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR334

Matrix: (soil/water) SOLID Lab Sample ID:C7H200116 004
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/20/97
Work Order: CCCR5103 Date Extracted:08/21/97
Dilution factor: 1 Date Analyzed: 08/21/97
Moisture %:2.1

QC Batch: 7233185

Client Sample Id: T2-SB04-1517

		(ug/L or ug/kg) ug/kg		
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 004

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR5101
Dilution factor: 1
Moisture %:2.1

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/11/97

QC Batch: 7250108

Client Sample Id: T2-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	340	U
208-96-8	Acenaphthylene	340	U
120-12-7	Anthracene	340	U
56-55-3	Benzo(a)anthracene	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
191-24-2	**Benzo(ghi)perylene**	**360**	
50-32-8	Benzo(a)pyrene	340	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
111-44-4	bis(2-Chloroethyl) ether	340	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	340	U
117-81-7	bis(2-Ethylhexyl) phthalate	340	U
101-55-3	4-Bromophenyl phenyl ether	340	U
85-68-7	Butyl benzyl phthalate	340	U
106-47-8	4-Chloroaniline	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-58-7	2-Chloronaphthalene	340	U
95-57-8	2-Chlorophenol	340	U
7005-72-3	4-Chlorophenyl phenyl ether	340	U
218-01-9	Chrysene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
132-64-9	Dibenzofuran	340	U
84-74-2	Di-n-butyl phthalate	340	U
95-50-1	1,2-Dichlorobenzene	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
120-83-2	2,4-Dichlorophenol	340	U
84-66-2	Diethyl phthalate	340	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 004

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR5101
Dilution factor: 1
Moisture %:2.1

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/11/97

QC Batch: 7250108

Client Sample Id: T2-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	340	U
131-11-3	Dimethyl phthalate	340	U
117-84-0	Di-n-octyl phthalate	340	U
534-52-1	4,6-Dinitro-2-methylphenol	850	U
51-28-5	2,4-Dinitrophenol	850	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
206-44-0	Fluoranthene	340	U
86-73-7	Fluorene	340	U
118-74-1	Hexachlorobenzene	340	U
87-68-3	Hexachlorobutadiene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
67-72-1	Hexachloroethane	340	U
193-39-5	**Indeno(1,2,3-cd)pyrene**	**380**	
78-59-1	Isophorone	340	U
91-57-6	2-Methylnaphthalene	340	U
95-48-7	2-Methylphenol	340	U
106-44-5	4-Methylphenol	340	U
91-20-3	Naphthalene	340	U
88-74-4	2-Nitroaniline	850	U
99-09-2	3-Nitroaniline	850	U
100-01-6	4-Nitroaniline	850	U
98-95-3	Nitrobenzene	340	U
88-75-5	2-Nitrophenol	340	U
100-02-7	4-Nitrophenol	850	U
621-64-7	N-Nitrosodi-n-propylamine	340	U
86-30-6	N-Nitrosodiphenylamine	340	U
87-86-5	Pentachlorophenol	850	U
85-01-8	Phenanthrene	340	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR334

Matrix: (soil/water) SOLID Lab Sample ID:C7H200116 004
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/20/97
Work Order: CCCR5101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/11/97
Moisture %:2.1

QC Batch: 7250108

Client Sample Id: T2-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	340	U
129-00-0	Pyrene	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
95-95-4	2,4,5-Trichlorophenol	850	U
88-06-2	2,4,6-Trichlorophenol	340	U
86-74-8	Carbazole	340	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 004

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR5101
Dilution factor: 1
Moisture %:2.1

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/11/97

QC Batch: 7250108

Client Sample Id: T2-SB04-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-Hydroxy-4-Met	2.8838	20000	JBA
	Unknown Cyclo Alkane	3.4548	91	J
57-10-3	Hexadecanoic acid	11.327	240	JB
192-97-2	Benzo[e]pyrene	17.565	92	J
	Unknown PAH	19.264	130	J
	Unknown	21.59	84	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 005

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR6103
Dilution factor: 1
Moisture %:3.2

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 005

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCCR6103
Dilution factor: 1
Moisture %:3.2

Date Received: 08/20/97
Date Extracted:08/21/97
Date Analyzed: 08/21/97

QC Batch: 7233185

Client Sample Id: T2-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID: C7H200116 005

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g

Date Received: 08/20/97

Work Order: CCCR6103

Date Extracted: 08/21/97

Dilution factor: 1

Date Analyzed: 08/21/97

Moisture %: 3.2

QC Batch: 7233185

Client Sample Id: T2-SB05-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR6101
Dilution factor: 1
Moisture %:3.2

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	340	U
208-96-8	Acenaphthylene	340	U
120-12-7	Anthracene	340	U
56-55-3	Benzo(a)anthracene	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
191-24-2	Benzo(ghi)perylene	340	U
50-32-8	Benzo(a)pyrene	340	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
111-44-4	bis(2-Chloroethyl) ether	340	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	340	U
117-81-7	bis(2-Ethylhexyl) phthalate	340	U
101-55-3	4-Bromophenyl phenyl ether	340	U
85-68-7	Butyl benzyl phthalate	340	U
106-47-8	4-Chloroaniline	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-58-7	2-Chloronaphthalene	340	U
95-57-8	2-Chlorophenol	340	U
7005-72-3	4-Chlorophenyl phenyl ether	340	U
218-01-9	Chrysene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
132-64-9	Dibenzofuran	340	U
84-74-2	Di-n-butyl phthalate	340	U
95-50-1	1,2-Dichlorobenzene	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
120-83-2	2,4-Dichlorophenol	340	U
84-66-2	Diethyl phthalate	340	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR334

Matrix: (soil/water) SOLID Lab Sample ID:C7H200116 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/20/97
Work Order: CCCR6101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/10/97
Moisture %:3.2

QC Batch: 7250108

Client Sample Id: T2-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	340	U
131-11-3	Dimethyl phthalate	340	U
117-84-0	Di-n-octyl phthalate	340	U
534-52-1	4,6-Dinitro-2-methylphenol	860	U
51-28-5	2,4-Dinitrophenol	860	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
206-44-0	Fluoranthene	340	U
86-73-7	Fluorene	340	U
118-74-1	Hexachlorobenzene	340	U
87-68-3	Hexachlorobutadiene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
67-72-1	Hexachloroethane	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
78-59-1	Isophorone	340	U
91-57-6	2-Methylnaphthalene	340	U
95-48-7	2-Methylphenol	340	U
106-44-5	4-Methylphenol	340	U
91-20-3	Naphthalene	340	U
88-74-4	2-Nitroaniline	860	U
99-09-2	3-Nitroaniline	860	U
100-01-6	4-Nitroaniline	860	U
98-95-3	Nitrobenzene	340	U
88-75-5	2-Nitrophenol	340	U
100-02-7	4-Nitrophenol	860	U
621-64-7	N-Nitrosodi-n-propylamine	340	U
86-30-6	N-Nitrosodiphenylamine	340	U
87-86-5	Pentachlorophenol	860	U
85-01-8	Phenanthrene	340	U

Lab Name:QUANTERRA

SDG Number: BR334

Matrix: (soil/water) SOLID

Lab Sample ID:C7H200116 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCCR6101
Dilution factor: 1
Moisture %:3.2

Date Received: 08/20/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: T2-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	340	U
129-00-0	Pyrene	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
95-95-4	2,4,5-Trichlorophenol	860	U
88-06-2	2,4,6-Trichlorophenol	340	U
86-74-8	Carbazole	340	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR334

Matrix: (soil/water) SOLID Lab Sample ID:C7H200116 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/20/97
Work Order: CCCR6101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/10/97
Moisture %:3.2

QC Batch: 7250108

Client Sample Id: T2-SB05-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-Hydroxy-4-Met	2.91	21000	JBA
57-10-3	Hexadecanoic Acid	11.4	160	JB

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 002
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKA103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:7.0

QC Batch: 7237146

Client Sample Id: TP3-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	11	U
71-43-2	Benzene	11	U
75-27-4	Bromodichloromethane	11	U
75-25-2	Bromoform	11	U
74-83-9	Bromomethane	11	U
78-93-3	2-Butanone	11	U
75-15-0	Carbon disulfide	11	U
56-23-5	Carbon tetrachloride	11	U
108-90-7	Chlorobenzene	11	U
124-48-1	Dibromochloromethane	11	U
75-00-3	Chloroethane	11	U
67-66-3	Chloroform	11	U
74-87-3	Chloromethane	11	U
75-34-3	1,1-Dichloroethane	11	U
107-06-2	1,2-Dichloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
100-41-4	Ethylbenzene	11	U
591-78-6	2-Hexanone	11	U
75-09-2	Methylene chloride	11	U
108-10-1	4-Methyl-2-pentanone	11	U
100-42-5	Styrene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
127-18-4	Tetrachloroethene	11	U
108-88-3	Toluene	11	U
71-55-6	1,1,1-Trichloroethane	11	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 002
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKA103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:7.0

QC Batch: 7237146

Client Sample Id: TP3-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	11	U
79-01-6	Trichloroethene	11	U
75-01-4	Vinyl chloride	11	U
1330-20-7	Xylenes (total)	11	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 002

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCDKA103
Dilution factor: 1
Moisture %:7.0

Date Received: 08/21/97
Date Extracted:08/25/97
Date Analyzed: 08/25/97

QC Batch: 7237146

Client Sample Id: TP3-SB01-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 002
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKA101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/10/97
Moisture %:7.0

QC Batch: 7250108

Client Sample Id: TP3-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	350	U
208-96-8	Acenaphthylene	350	U
120-12-7	Anthracene	350	U
56-55-3	Benzo(a)anthracene	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
191-24-2	Benzo(ghi)perylene	350	U
50-32-8	Benzo(a)pyrene	350	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
111-44-4	bis(2-Chloroethyl) ether	350	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	350	U
117-81-7	bis(2-Ethylhexyl) phthalate	350	U
101-55-3	4-Bromophenyl phenyl ether	350	U
85-68-7	Butyl benzyl phthalate	350	U
106-47-8	4-Chloroaniline	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-58-7	2-Chloronaphthalene	350	U
95-57-8	2-Chlorophenol	350	U
7005-72-3	4-Chlorophenyl phenyl ether	350	U
218-01-9	Chrysene	350	U
53-70-3	Dibenz(a,h)anthracene	350	U
132-64-9	Dibenzofuran	350	U
84-74-2	Di-n-butyl phthalate	350	U
95-50-1	1,2-Dichlorobenzene	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
91-94-1	3,3'-Dichlorobenzidine	350	U
120-83-2	2,4-Dichlorophenol	350	U
84-66-2	Diethyl phthalate	350	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKA101
Dilution factor: 1
Moisture %:7.0

Date Received: 08/21/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: TP3-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	350	U
131-11-3	Dimethyl phthalate	350	U
117-84-0	Di-n-octyl phthalate	350	U
534-52-1	4,6-Dinitro-2-methylphenol	890	U
51-28-5	2,4-Dinitrophenol	890	U
121-14-2	2,4-Dinitrotoluene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
206-44-0	Fluoranthene	350	U
86-73-7	Fluorene	350	U
118-74-1	Hexachlorobenzene	350	U
87-68-3	Hexachlorobutadiene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
67-72-1	Hexachloroethane	350	U
193-39-5	Indeno(1,2,3-cd)pyrene	350	U
78-59-1	Isophorone	350	U
91-57-6	2-Methylnaphthalene	350	U
95-48-7	2-Methylphenol	350	U
106-44-5	4-Methylphenol	350	U
91-20-3	Naphthalene	350	U
88-74-4	2-Nitroaniline	890	U
99-09-2	3-Nitroaniline	890	U
100-01-6	4-Nitroaniline	890	U
98-95-3	Nitrobenzene	350	U
88-75-5	2-Nitrophenol	350	U
100-02-7	4-Nitrophenol	890	U
621-64-7	N-Nitrosodi-n-propylamine	350	U
86-30-6	N-Nitrosodiphenylamine	350	U
87-86-5	Pentachlorophenol	890	U
85-01-8	Phenanthrene	350	U

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 002
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKA101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/10/97
Moisture %:7.0

QC Batch: 7250108

Client Sample Id: TP3-SB01-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	350	U
129-00-0	Pyrene	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
95-95-4	2,4,5-Trichlorophenol	890	U
88-06-2	2,4,6-Trichlorophenol	350	U
86-74-8	Carbazole	350	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 002

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKA101
Dilution factor: 1
Moisture %:7.0

Date Received: 08/21/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: TP3-SB01-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-Hydroxy-4-Met	2.8983	24000	ABJN
57-10-3	Hexadecanoic acid	11.406	320	BJN

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 003
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKC103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:4.3

QC Batch: 7237146

Client Sample Id: TP3-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name: QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID: C7H210119 003

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCDKC103
Dilution factor: 1
Moisture %: 4.3

Date Received: 08/21/97
Date Extracted: 08/25/97
Date Analyzed: 08/25/97

QC Batch: 7237146

Client Sample Id: TP3-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 003
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKC103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:4.3

QC Batch: 7237146

Client Sample Id: TP3-SB02-1517

		(ug/L or ug/kg) ug/kg		
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 003

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKC101
Dilution factor: 1
Moisture %:4.3

Date Received: 08/21/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: TP3-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	340	U
208-96-8	Acenaphthylene	340	U
120-12-7	Anthracene	340	U
56-55-3	Benzo(a)anthracene	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
191-24-2	Benzo(ghi)perylene	340	U
50-32-8	Benzo(a)pyrene	340	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
111-44-4	bis(2-Chloroethyl) ether	340	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	340	U
117-81-7	bis(2-Ethylhexyl) phthalate	340	U
101-55-3	4-Bromophenyl phenyl ether	340	U
85-68-7	Butyl benzyl phthalate	340	U
106-47-8	4-Chloroaniline	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-58-7	2-Chloronaphthalene	340	U
95-57-8	2-Chlorophenol	340	U
7005-72-3	4-Chlorophenyl phenyl ether	340	U
218-01-9	Chrysene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
132-64-9	Dibenzofuran	340	U
84-74-2	Di-n-butyl phthalate	340	U
95-50-1	1,2-Dichlorobenzene	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
120-83-2	2,4-Dichlorophenol	340	U
84-66-2	Diethyl phthalate	340	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 003
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKC101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/10/97
Moisture %:4.3

QC Batch: 7250108

Client Sample Id: TP3-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	340	U
131-11-3	Dimethyl phthalate	340	U
117-84-0	Di-n-octyl phthalate	340	U
534-52-1	4,6-Dinitro-2-methylphenol	870	U
51-28-5	2,4-Dinitrophenol	870	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
206-44-0	Fluoranthene	340	U
86-73-7	Fluorene	340	U
118-74-1	Hexachlorobenzene	340	U
87-68-3	Hexachlorobutadiene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
67-72-1	Hexachloroethane	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
78-59-1	Isophorone	340	U
91-57-6	2-Methylnaphthalene	340	U
95-48-7	2-Methylphenol	340	U
106-44-5	4-Methylphenol	340	U
91-20-3	Naphthalene	340	U
88-74-4	2-Nitroaniline	870	U
99-09-2	3-Nitroaniline	870	U
100-01-6	4-Nitroaniline	870	U
98-95-3	Nitrobenzene	340	U
88-75-5	2-Nitrophenol	340	U
100-02-7	4-Nitrophenol	870	U
621-64-7	N-Nitrosodi-n-propylamine	340	U
86-30-6	N-Nitrosodiphenylamine	340	U
87-86-5	Pentachlorophenol	870	U
85-01-8	Phenanthrene	340	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 003

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKC101
Dilution factor: 1
Moisture %:4.3

Date Received: 08/21/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: TP3-SB02-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	340	U
129-00-0	Pyrene	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
95-95-4	2,4,5-Trichlorophenol	870	U
88-06-2	2,4,6-Trichlorophenol	340	U
86-74-8	Carbazole	340	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 003
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKC101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/10/97
Moisture %:4.3

QC Batch: 7250108

Client Sample Id: TP3-SB02-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-hydroxy-4-met	2.9268	22000	ABJN
57-10-3	Hexadecanoic acid	11.398	180	BJN

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 004
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKD103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:2.5

QC Batch: 7237146

Client Sample Id: TP3-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 004
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKD103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:2.5

QC Batch: 7237146

Client Sample Id: TP3-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 004
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKD103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:2.5

QC Batch: 7237146

Client Sample Id: TP3-SB03-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 004
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKD101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/11/97
Moisture %:2.5

QC Batch: 7250108

Client Sample Id: TP3-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	340	U
208-96-8	Acenaphthylene	340	U
120-12-7	Anthracene	340	U
56-55-3	Benzo(a)anthracene	340	U
205-99-2	**Benzo(b)fluoranthene**	**82**	**J**
207-08-9	Benzo(k)fluoranthene	340	U
191-24-2	**Benzo(ghi)perylene**	**390**	
50-32-8	**Benzo(a)pyrene**	**36**	**J**
111-91-1	bis(2-Chloroethoxy)methane	340	U
111-44-4	bis(2-Chloroethyl) ether	340	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	340	U
117-81-7	bis(2-Ethylhexyl) phthalate	340	U
101-55-3	4-Bromophenyl phenyl ether	340	U
85-68-7	Butyl benzyl phthalate	340	U
106-47-8	4-Chloroaniline	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-58-7	2-Chloronaphthalene	340	U
95-57-8	2-Chlorophenol	340	U
7005-72-3	4-Chlorophenyl phenyl ether	340	U
218-01-9	Chrysene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
132-64-9	Dibenzofuran	340	U
84-74-2	Di-n-butyl phthalate	340	U
95-50-1	1,2-Dichlorobenzene	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
120-83-2	2,4-Dichlorophenol	340	U
84-66-2	Diethyl phthalate	340	U

BROWN & ROOT ENVIRONMENTAL

Lab Name: QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID: C7H210119 004

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKD101
Dilution factor: 1
Moisture %: 2.5

Date Received: 08/21/97
Date Extracted: 08/28/97
Date Analyzed: 09/11/97

QC Batch: 7250108

Client Sample Id: TP3-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	340	U
131-11-3	Dimethyl phthalate	340	U
117-84-0	Di-n-octyl phthalate	340	U
534-52-1	4,6-Dinitro-2-methylphenol	850	U
51-28-5	2,4-Dinitrophenol	850	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
206-44-0	Fluoranthene	340	U
86-73-7	Fluorene	340	U
118-74-1	Hexachlorobenzene	340	U
87-68-3	Hexachlorobutadiene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
67-72-1	Hexachloroethane	340	U
193-39-5	**Indeno(1,2,3-cd)pyrene**	**480**	
78-59-1	Isophorone	340	U
91-57-6	2-Methylnaphthalene	340	U
95-48-7	2-Methylphenol	340	U
106-44-5	4-Methylphenol	340	U
91-20-3	Naphthalene	340	U
88-74-4	2-Nitroaniline	850	U
99-09-2	3-Nitroaniline	850	U
100-01-6	4-Nitroaniline	850	U
98-95-3	Nitrobenzene	340	U
88-75-5	2-Nitrophenol	340	U
100-02-7	4-Nitrophenol	850	U
621-64-7	N-Nitrosodi-n-propylamine	340	U
86-30-6	N-Nitrosodiphenylamine	340	U
87-86-5	Pentachlorophenol	850	U
85-01-8	Phenanthrene	340	U

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 004
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKD101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/11/97
Moisture %:2.5

QC Batch: 7250108

Client Sample Id: TP3-SB03-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	340	U
129-00-0	Pyrene	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
95-95-4	2,4,5-Trichlorophenol	850	U
88-06-2	2,4,6-Trichlorophenol	340	U
86-74-8	Carbazole	340	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 004

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKD101
Dilution factor: 1
Moisture %:2.5

Date Received: 08/21/97
Date Extracted:08/28/97
Date Analyzed: 09/11/97

QC Batch: 7250108

Client Sample Id: TP3-SB03-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-Hydroxy-4-Met	2.8938	23000	ABJN
57-10-3	Hexadecanoic acid	11.323	210	BJN
41464-42-0	1,1'-Biphenyl, 2,3',5,5'-tet	11.351	300	JN
41464-42-0	1,1'-Biphenyl, 2,3',5,5'-tet	11.687	89	JN
41464-42-0	1,1'-Biphenyl, 2,3',5,5'-tet	12.3	99	JN
38380-03-9	1,1'-Biphenyl, 2,3,3',4',6-p	12.379	440	JN
38380-03-9	1,1'-Biphenyl, 2,3,3',4',6-p	12.636	110	JN
38380-03-9	1,1'-Biphenyl, 2,3,3',4',6-p	12.729	1000	JN
38380-03-9	1,1'-Biphenyl, 2,3,3',4',6-p	12.807	280	JN
38380-03-9	1,1'-Biphenyl, 2,3,3',4',6-p	13.064	190	JN
38380-01-7	1,1'-Biphenyl, 2,2',4,4',5-p	13.143	360	JN
38380-03-9	1,1'-Biphenyl, 2,3,3',4',6-p	13.307	730	JN
18259-05-7	1,1'-Biphenyl, 2,3,4,5,6-pen	13.478	90	JN
38411-22-2	1,1'-Biphenyl, 2,2',3,3',6,6	13.664	340	JN
39485-83-1	1,1'-Biphenyl, 2,2',4,4',6-p	13.692	420	JN
52663-72-6	1,1'-Biphenyl, 2,3',4,4',5,5	14.02	280	JN
26601-64-9	1,1'-Biphenyl, hexachloro- o	14.085	240	JN
26601-64-9	1,1'-Biphenyl, hexachloro- o	14.449	440	JN
69782-90-7	1,1'-Biphenyl, 2,3,3',4,4',5	14.863	86	JN
	Unknown	15.541	98	J
	Unknown	19.038	72	J
	Unknown PAH	19.266	260	J
	Unknown PAH	21.6	98	J

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 005
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKE103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:3.4

QC Batch: 7237146

Client Sample Id: TP3-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 005

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCDKE103
Dilution factor: 1
Moisture %:3.4

Date Received: 08/21/97
Date Extracted:08/25/97
Date Analyzed: 08/25/97

QC Batch: 7237146

Client Sample Id: TP3-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA — SDG Number: BR335

Matrix: (soil/water) SOLID — Lab Sample ID:C7H210119 005
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g — Date Received: 08/21/97
Work Order: CCDKE103 — Date Extracted:08/25/97
Dilution factor: 1 — Date Analyzed: 08/25/97
Moisture %:3.4

QC Batch: 7237146

Client Sample Id: TP3-SB04-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

Lab Name: QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID: C7H210119 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g

Date Received: 08/21/97

Work Order: CCDKE201

Date Extracted: 09/15/97

Dilution factor: 1

Date Analyzed: 09/18/97

Moisture %: 3.4

QC Batch: 7258133

Client Sample Id: TP3-SB04-1517 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	340	U
208-96-8	Acenaphthylene	340	U
120-12-7	Anthracene	340	U
56-55-3	Benzo(a)anthracene	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
191-24-2	Benzo(ghi)perylene	340	U
50-32-8	Benzo(a)pyrene	340	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
111-44-4	bis(2-Chloroethyl) ether	340	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	340	U
117-81-7	bis(2-Ethylhexyl) phthalate	340	U
101-55-3	4-Bromophenyl phenyl ether	340	U
85-68-7	Butyl benzyl phthalate	340	U
106-47-8	4-Chloroaniline	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-58-7	2-Chloronaphthalene	340	U
95-57-8	2-Chlorophenol	340	U
7005-72-3	4-Chlorophenyl phenyl ether	340	U
218-01-9	Chrysene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
132-64-9	Dibenzofuran	340	U
84-74-2	Di-n-butyl phthalate	340	U
95-50-1	1,2-Dichlorobenzene	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
120-83-2	2,4-Dichlorophenol	340	U
84-66-2	Diethyl phthalate	340	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKE201 Date Extracted:09/15/97
Dilution factor: 1 Date Analyzed: 09/18/97
Moisture %:3.4

QC Batch: 7258133

Client Sample Id: TP3-SB04-1517 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	340	U
131-11-3	Dimethyl phthalate	340	U
117-84-0	Di-n-octyl phthalate	340	U
534-52-1	4,6-Dinitro-2-methylphenol	860	U
51-28-5	2,4-Dinitrophenol	860	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
206-44-0	Fluoranthene	340	U
86-73-7	Fluorene	340	U
118-74-1	Hexachlorobenzene	340	U
87-68-3	Hexachlorobutadiene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
67-72-1	Hexachloroethane	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
78-59-1	Isophorone	340	U
91-57-6	2-Methylnaphthalene	340	U
95-48-7	2-Methylphenol	340	U
106-44-5	4-Methylphenol	340	U
91-20-3	Naphthalene	340	U
88-74-4	2-Nitroaniline	860	U
99-09-2	3-Nitroaniline	860	U
100-01-6	4-Nitroaniline	860	U
98-95-3	Nitrobenzene	340	U
88-75-5	2-Nitrophenol	340	U
100-02-7	4-Nitrophenol	860	U
621-64-7	N-Nitrosodi-n-propylamine	340	U
86-30-6	N-Nitrosodiphenylamine	340	U
87-86-5	Pentachlorophenol	860	U
85-01-8	Phenanthrene	340	U

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKE201
Dilution factor: 1
Moisture %:3.4

Date Received: 08/21/97
Date Extracted:09/15/97
Date Analyzed: 09/18/97

QC Batch: 7258133

Client Sample Id: TP3-SB04-1517 -RE 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	340	U
129-00-0	Pyrene	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
95-95-4	2,4,5-Trichlorophenol	860	U
88-06-2	2,4,6-Trichlorophenol	340	U
86-74-8	Carbazole	340	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKE201 Date Extracted:09/15/97
Dilution factor: 1 Date Analyzed: 09/18/97
Moisture %:3.4

QC Batch: 7258133

Client Sample Id: TP3-SB04-1517 -RE 1

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-hydroxy-4-met	2.96	44000	JNBA

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKE101
Dilution factor: 1
Moisture %:3.4

Date Received: 08/21/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: TP3-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	340	U
208-96-8	Acenaphthylene	340	U
120-12-7	Anthracene	340	U
56-55-3	Benzo(a)anthracene	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
191-24-2	Benzo(ghi)perylene	340	U
50-32-8	Benzo(a)pyrene	340	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
111-44-4	bis(2-Chloroethyl) ether	340	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	340	U
117-81-7	bis(2-Ethylhexyl) phthalate	340	U
101-55-3	4-Bromophenyl phenyl ether	340	U
85-68-7	Butyl benzyl phthalate	340	U
106-47-8	4-Chloroaniline	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-58-7	2-Chloronaphthalene	340	U
95-57-8	2-Chlorophenol	340	U
7005-72-3	4-Chlorophenyl phenyl ether	340	U
218-01-9	Chrysene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
132-64-9	Dibenzofuran	340	U
84-74-2	Di-n-butyl phthalate	340	U
95-50-1	1,2-Dichlorobenzene	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
120-83-2	2,4-Dichlorophenol	340	U
84-66-2	Diethyl phthalate	340	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKE101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/10/97
Moisture %:3.4

QC Batch: 7250108

Client Sample Id: TP3-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	340	U
131-11-3	Dimethyl phthalate	340	U
117-84-0	Di-n-octyl phthalate	340	U
534-52-1	4,6-Dinitro-2-methylphenol	860	U
51-28-5	2,4-Dinitrophenol	860	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
206-44-0	Fluoranthene	340	U
86-73-7	Fluorene	340	U
118-74-1	Hexachlorobenzene	340	U
87-68-3	Hexachlorobutadiene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
67-72-1	Hexachloroethane	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
78-59-1	Isophorone	340	U
91-57-6	2-Methylnaphthalene	340	U
95-48-7	2-Methylphenol	340	U
106-44-5	4-Methylphenol	340	U
91-20-3	Naphthalene	340	U
88-74-4	2-Nitroaniline	860	U
99-09-2	3-Nitroaniline	860	U
100-01-6	4-Nitroaniline	860	U
98-95-3	Nitrobenzene	340	U
88-75-5	2-Nitrophenol	340	U
100-02-7	4-Nitrophenol	860	U
621-64-7	N-Nitrosodi-n-propylamine	340	U
86-30-6	N-Nitrosodiphenylamine	340	U
87-86-5	Pentachlorophenol	860	U
85-01-8	Phenanthrene	340	U

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 005

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKE101
Dilution factor: 1
Moisture %:3.4

Date Received: 08/21/97
Date Extracted:08/28/97
Date Analyzed: 09/10/97

QC Batch: 7250108

Client Sample Id: TP3-SB04-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	340	U
129-00-0	Pyrene	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
95-95-4	2,4,5-Trichlorophenol	860	U
88-06-2	2,4,6-Trichlorophenol	340	U
86-74-8	Carbazole	340	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 005
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKE101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/10/97
Moisture %:3.4

QC Batch: 7250108

Client Sample Id: TP3-SB04-1517

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. (ug/L or ug/kg) ug/kg	Q
000123-42-2	2-PENTANONE,4-HYDROXY-4-METH	2.91	25000	JNBA

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 006

Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g
Work Order: CCDKF103
Dilution factor: 1
Moisture %:3.0

Date Received: 08/21/97
Date Extracted:08/25/97
Date Analyzed: 08/25/97

QC Batch: 7237146

Client Sample Id: TP3-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
67-64-1	Acetone	10	U
71-43-2	Benzene	10	U
75-27-4	Bromodichloromethane	10	U
75-25-2	Bromoform	10	U
74-83-9	Bromomethane	10	U
78-93-3	2-Butanone	10	U
75-15-0	Carbon disulfide	10	U
56-23-5	Carbon tetrachloride	10	U
108-90-7	Chlorobenzene	10	U
124-48-1	Dibromochloromethane	10	U
75-00-3	Chloroethane	10	U
67-66-3	Chloroform	10	U
74-87-3	Chloromethane	10	U
75-34-3	1,1-Dichloroethane	10	U
107-06-2	1,2-Dichloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
100-41-4	Ethylbenzene	10	U
591-78-6	2-Hexanone	10	U
75-09-2	Methylene chloride	10	U
108-10-1	4-Methyl-2-pentanone	10	U
100-42-5	Styrene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
127-18-4	Tetrachloroethene	10	U
108-88-3	Toluene	10	U
71-55-6	1,1,1-Trichloroethane	10	U

BROWN & ROOT ENVIRONMENTAL

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 006
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKF103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:3.0

QC Batch: 7237146

Client Sample Id: TP3-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
79-00-5	1,1,2-Trichloroethane	10	U
79-01-6	Trichloroethene	10	U
75-01-4	Vinyl chloride	10	U
1330-20-7	Xylenes (total)	10	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 006
Method: OCLP OLM03.1
Volatile Organics, GC/MS (CLP -OLM03.1)

Sample WT/Vol: 5 / g Date Received: 08/21/97
Work Order: CCDKF103 Date Extracted:08/25/97
Dilution factor: 1 Date Analyzed: 08/25/97
Moisture %:3.0

QC Batch: 7237146

Client Sample Id: TP3-SB05-1517

		(ug/L or ug/kg) ug/kg		
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	NO TICS DETECTED			ND

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 006
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKF101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/11/97
Moisture %:3.0

QC Batch: 7250108

Client Sample Id: TP3-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
83-32-9	Acenaphthene	340	U
208-96-8	Acenaphthylene	340	U
120-12-7	Anthracene	340	U
56-55-3	Benzo(a)anthracene	340	U
205-99-2	**Benzo(b)fluoranthene**	**50**	**J**
207-08-9	Benzo(k)fluoranthene	340	U
191-24-2	**Benzo(ghi)perylene**	**280**	**J**
50-32-8	**Benzo(a)pyrene**	**170**	**J**
111-91-1	bis(2-Chloroethoxy)methane	340	U
111-44-4	bis(2-Chloroethyl) ether	340	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	340	U
117-81-7	bis(2-Ethylhexyl) phthalate	340	U
101-55-3	4-Bromophenyl phenyl ether	340	U
85-68-7	Butyl benzyl phthalate	340	U
106-47-8	4-Chloroaniline	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-58-7	2-Chloronaphthalene	340	U
95-57-8	2-Chlorophenol	340	U
7005-72-3	4-Chlorophenyl phenyl ether	340	U
218-01-9	Chrysene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
132-64-9	Dibenzofuran	340	U
84-74-2	Di-n-butyl phthalate	340	U
95-50-1	1,2-Dichlorobenzene	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
91-94-1	3,3'-Dichlorobenzidine	340	U
120-83-2	2,4-Dichlorophenol	340	U
84-66-2	Diethyl phthalate	340	U

Lab Name:QUANTERRA

SDG Number: BR335

Matrix: (soil/water) SOLID

Lab Sample ID:C7H210119 006

Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g
Work Order: CCDKF101
Dilution factor: 1
Moisture %:3.0

Date Received: 08/21/97
Date Extracted:08/28/97
Date Analyzed: 09/11/97

QC Batch: 7250108

Client Sample Id: TP3-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
105-67-9	2,4-Dimethylphenol	340	U
131-11-3	Dimethyl phthalate	340	U
117-84-0	Di-n-octyl phthalate	340	U
534-52-1	4,6-Dinitro-2-methylphenol	860	U
51-28-5	2,4-Dinitrophenol	860	U
121-14-2	2,4-Dinitrotoluene	340	U
606-20-2	2,6-Dinitrotoluene	340	U
206-44-0	Fluoranthene	340	U
86-73-7	Fluorene	340	U
118-74-1	Hexachlorobenzene	340	U
87-68-3	Hexachlorobutadiene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
67-72-1	Hexachloroethane	340	U
193-39-5	**Indeno(1,2,3-cd)pyrene**	**340**	
78-59-1	Isophorone	340	U
91-57-6	2-Methylnaphthalene	340	U
95-48-7	2-Methylphenol	340	U
106-44-5	4-Methylphenol	340	U
91-20-3	Naphthalene	340	U
88-74-4	2-Nitroaniline	860	U
99-09-2	3-Nitroaniline	860	U
100-01-6	4-Nitroaniline	860	U
98-95-3	Nitrobenzene	340	U
88-75-5	2-Nitrophenol	340	U
100-02-7	4-Nitrophenol	860	U
621-64-7	N-Nitrosodi-n-propylamine	340	U
86-30-6	N-Nitrosodiphenylamine	340	U
87-86-5	Pentachlorophenol	860	U
85-01-8	Phenanthrene	340	U

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 006
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKF101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/11/97
Moisture %:3.0

QC Batch: 7250108

Client Sample Id: TP3-SB05-1517

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/kg) ug/kg	Q
108-95-2	Phenol	340	U
129-00-0	Pyrene	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
95-95-4	2,4,5-Trichlorophenol	860	U
88-06-2	2,4,6-Trichlorophenol	340	U
86-74-8	Carbazole	340	U

BROWN & ROOT ENVIRONMENTAL
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:QUANTERRA SDG Number: BR335

Matrix: (soil/water) SOLID Lab Sample ID:C7H210119 006
Method: OCLP OLM03.1
Base/Neutrals and Acids (CLP-OLM03.1)

Sample WT/Vol: 30 / g Date Received: 08/21/97
Work Order: CCDKF101 Date Extracted:08/28/97
Dilution factor: 1 Date Analyzed: 09/11/97
Moisture %:3.0

QC Batch: 7250108

Client Sample Id: TP3-SB05-1517

(ug/L or ug/kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
123-42-2	2-Pentanone, 4-Hydroxy-4-Met	2.8624	22000	ABJN
57-10-3	Hexadecanoic acid	11.327	180	BJN
26914-33-0	1,1'-Biphenyl, tetrachloro-	11.348	88	JN
10544-50-0	Sulfur, mol. (s8)	12.219	100	JN
38380-03-9	1,1'-Biphenyl, 2,3,3',4',6-p	12.369	110	JN
38380-01-7	1,1'-Biphenyl, 2,2',4,4',5-p	12.719	250	JN
25429-29-2	1,1'-Biphenyl, pentachloro-	13.297	170	JN
31508-00-6	1,1'-Biphenyl, 2,3',4,4',5-p	13.682	82	JN
26601-64-9	1,1'-Biphenyl, hexachloro- o	14.446	92	JN
	Unknown PAH	17.294	79	J
192-97-2	Benzo[e]pyrene	17.572	230	JN
	Unknown PAH	19.264	150	J
	Unknown	21.597	82	J
	Unknown	21.819	84	J
	Unknown	21.926	77	J

APPENDIX B
SAMPLE LOG SHEETS

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP Calverton
Project No.: 7398

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: FD-MW07
Sample Location: Five
Sampled By: S. Putrelo
C.O.C. No.: #5 of 5
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11/14/97	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1705	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: disp. bailer	clear	5.15	0.047	11.7	0	4.58	0.0	

PURGE DATA:

Date: 11/14/97	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: hand bail	Initial	5.09	0.045	11.3	0	5.07	0.0	
Monitor Reading (ppm): —	1	5.18	0.050	11.6	0	4.07	0.0	
Well Casing Diameter & Material	2	5.13	0.046	11.7	0	5.14	0.0	
Type: 4" PVC	3	5.15	0.047	11.7	0	4.58	0.0	
Total Well Depth (TD): 22.93								
Static Water Level (WL): 17.28								
One Casing Volume (gal/L): 3.70								
Start Purge (hrs): 1625								
End Purge (hrs): 1700								
Total Purge Time (min): 35								
Total Vol. Purged (gal/L): 15								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOC	HCl, 4°C	(2) 40ml vials	✓

OBSERVATIONS / NOTES:

Sample collected approximately 20' below TOC

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP-CALVERTON
Project No.: 7398

Sample ID No.: FD-GW-05
Sample Location: Fuel Dept
Sampled By: Paul Davis
C.O.C. No.:

[] Domestic Well Data
[] Monitoring Well Data
[■] Other Well Type: Temporary Well
[] QA Sample Type:

Type of Sample:
[■] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-12-97	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1640	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PE tubing								

PURGE DATA:

Date: 11-12-97	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: Peristaltic Pump	Initial							
Monitor Reading (ppm): -	1							
Well Casing Diameter & Material	2							
Type: Steel 1/2"	3							
Total Well Depth (TD): 21'				N.A.				
Static Water Level (WL): 19'								
One Casing Volume (gal/L): 0.46								
Start Purge (hrs): 1625								
End Purge (hrs): 1640								
Total Purge Time (min): 15								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC's	HCL	(2) 40 ml vials	✓
SVOC's	4°	(2) 1L ambers	✓

OBSERVATIONS / NOTES:

Collected sample from 19'-21' bgs 2' below gw level
Clear, not turbid water - petroleum odors.

Quanterra Lab

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	Paul M. Davis

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP-CALVERTON
Project No.: 7398

Sample ID No.: FD-GW-06
Sample Location: Fuel Depot
Sampled By: Paul Davis
C.O.C. No.:

[] Domestic Well Data
[] Monitoring Well Data
[■] Other Well Type: Temporary well
[] QA Sample Type:

Type of Sample:
[■] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-12-97	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1605	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PE tubing								

PURGE DATA:

Date: 11-12-97	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: Peristaltic Pump	Initial							
Monitor Reading (ppm): —	1							
Well Casing Diameter & Material	2							
Type: Steel 1/2"	3							
Total Well Depth (TD): 21.5'				N.A.				
Static Water Level (WL): 19.5'								
One Casing Volume(gal/L): 0.46								
Start Purge (hrs): 1549								
End Purge (hrs): 1605								
Total Purge Time (min): 16								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC's	HCl	(2) 40 ml Vials	✓
SVOC's	4°	(2) 1 L. Ambers	✓

OBSERVATIONS / NOTES:

Collected sample from 19.5' - 21.5' bgs 2' below GW level
Clear - not turbid water
slight petroleum odors
Quanterra Lab.

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Paul M. D—

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NWIRP-CALVERTON
Project No.: 7398

[] Domestic Well Data
[] Monitoring Well Data
[■] Other Well Type: Temporary well
[] QA Sample Type:

Sample ID No.: FD-GW07
Sample Location: Fuel Depot
Sampled By: Paul Davis
C.O.C. No.:
Type of Sample:
[■] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 11-12-97	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1455	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PE tubing								

PURGE DATA:

Date: 11-12-97	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: Peristaltic Pump	Initial							
Monitor Reading (ppm): -	1							
Well Casing Diameter & Material	2							
Type: Steel 1/2"	3							
Total Well Depth (TD): 21'				N.A.				
Static Water Level (WL): 19'								
One Casing Volume(gal/L): 0.46								
Start Purge (hrs): 1443								
End Purge (hrs): 1455								
Total Purge Time (min): 12								
Total Vol. Purged (gal/L): 2.0								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC's	HCL	(2) 40 ml Vials	✓
SVOC's	4°	(2) 1 L ambers	✓

OBSERVATIONS / NOTES:

petroleum odors
collected sample from 19' to 21' bgs. 2' below GW level
Slightly turbid - light tan water
Quanterra Lab

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Paul M. D—

APPENDIX C
CHAIN OF CUSTODY FORMS

CHAIN OF CUSTODY RECORD

COC # 03W

PROJECT NO.:	SITE NAME:
7398	NWIRP-Calverton

SAMPLERS (SIGNATURE): Teresa Scherzer

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	40 ML VIAL	1 Liter Amber					REMARKS
	6/25	0700		X	FT-TB-03W	2	2						TRIP BLANK
	6/25	0950		X	FT-MW06-I-062597	2	2						
	6/25	1020		X	FT-MW06-S-062597	2	2						
	6/25	0600		X	FT-DUP02-W	2	2						
	6/25	1115		X	FT-MW05-I-062597	2	2						
	6/25	1130		X	FT-MW05-S-062597	2	2						
	6/25	1220		X	FT-MW08-S-062597	2	2						
	6/25	1240		X	FT-MW08-I-062597	2	2						
	6/25	1445		X	PR-GW01-02	2	2						
	6/25	1500		X	PR-GW02-02	4	2	2					
	6/25	1430		X	FD-MW07-062597	2	2						
	6/25	1500		X	PB-GW03-03	2	2						
	6/25	1800		X	FT-MW025-062597	2	2						

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
Teresa Scherzer	6/26/2020				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: Shipped FEDEX AIRBILL # 429361010 1	

Order No. 70440 (0693)

BR334

COC N

CHAIN OF CUSTODY RECORD

PROJECT NO.:	SITE NAME:
7398	NWIRP Calverton – Fuel Depot

SAMPLERS (SIGNATURE):

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC – 40z amber w/teflon	SVOC – 40z amber w/teflon	VOA – 40ml w/HCl				REMARKS
0	8/18/97	1615		✓	T2-SB01-1517	2	1	1	–				VOA Toluene 3.7 ug/kg BNA unit3
1	8/18/97	1625		✓	T2-SB02-1517	2	1	1	–				All ND TICs only (B)
2	8/18/97	1635		✓	T2-SB03-1517	2	1	1	–				TICs only (B)
3	8/18/97	1650		✓	T2-SB04-1517	2	1	1	–				butz
4	8/18/97	1700		✓	T2-SB05-1517	2	1	1	–				TICs only (B)
5	8/18/97	1715		✓	T2-TB32	2	–	–	2				Field paired Trip Blank (?)
													Acetone 26 ug/kg
					Method Blank								ND TICs only

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/19/97 0700				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	
			8/19/97 1000	Fed Ex Air Bill # 508140065 6	

Order No. 7044

Brown & Root Environmental C.E. Brown Dave Bowen

COC N

CHAIN OF CUSTODY RECORD

PROJECT NO.:	SITE NAME:
7398	NWIRP Calverton – Fuel Depot

SAMPLERS (SIGNATURE):

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC-40ml amber w/teflon septa	SVOC-40z amber w/teflon septa	VOA-40ml w/HCl				REMARKS
0	8/18/97	1615		✓	T2-SB01-1517	2	1	1	–				
1	8/18/97	1625		✓	T2-SB02-1517	2	1	1	–				
2	8/18/97	1635		✓	T2-SB03-1517	2	1	1	–				
3	8/18/97	1650		✓	T2-SB04-1517	2	1	1	–				
4	8/18/97	1700		✓	T2-SB05-1517	2	1	1	–				
5	8/19/97	1715		✓	T2-TB32	2	–	–	2				Field paired Trip Blank
					8/14/97 4 VOCs/SVOC								

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
	8/19/97 0700				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	
			8/20/97 1000	Fed Ex Air Bill # 508140065 6	

Order No. 70440 (0693)

Brown & Root Environmental / C.F. Braun — Dave Brayack

Brown & Root Environmental / C.T. Brown — Project Manager: Dave Bingham BR 335

CHAIN OF CUSTODY RECORD

PROJECT NO.:	SITE NAME:
7398	NWIRP Calverton - Fuel Depot

SAMPLERS (SIGNATURE): Stavros Patselas

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOA - 40 mL vial w/ HCl	VOC - 4 oz. amber wide mouth	SVOC - 4 oz. amber wide mouth				REMARKS
0	8/19/97	1345		✓	TP3-TB33	2	2	—	—				all ND Field Poured Trip Blank
1	8/19/97	1325		✓	TP3-SB01-1517	2	—	1	1				VOA all ND; SVOA TICs only (B)
2	8/19/97	1315		✓	TP3-SB02-1517	2	—	1	1				TICs only (B)
3	8/19/97	1325		✓	TP3-SB03-1517	2	—	1	1				hits + TICs
4	8/19/97	1330		✓	TP3-SB04-1517	2	—	1	1				TICs only (B)
5	8/19/97	1340		✓	TP3-SB05-1517	2	—	1	1				hits + TICs
					blank								all ND TIC only

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
[signature] BP	8/20/97 0730				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS:	
		[signature]	8/21/97 1100	Fed Ex Air Bill # 508140066O	

No. 704

Quanterra — S 15 from Test Pit 3 Fuel Dep

CHAIN OF CUSTODY RECORD Brown + Root Environmental Pitt Der Depot

PROJECT NO.: CTO 210 7340-0201	SITE NAME: [illegible]

SAMPLERS (SIGNATURE): [signature] [signature]

STATION NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS							REMARKS
QA/QC	11/14/97	0730		✓	TB-111497	2	2	–	–	–	-		Lab Provided Trip Blank
NP	11/14/97	0945		✓	NP-MW06	7	2	2	2	1			
NP	11/14/97	1155		✓	NP-MW05	7	2	2	2	1			
FD	11/14/97	1455		✓	FD-GW07	4	2	2	–	–			
FD	11/14/97	1605		✓	FD-GW06	4	2	2	–	–			
FD	11/14/97	1640		✓	FD-GW05	4	2	2	–	–			

RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
[signature]	11/14/97 1730				
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY (SIGNATURE):	RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED BY(SIGNATURE):
RELINQUISHED BY (SIGNATURE):	DATE / TIME:	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE / TIME:	REMARKS: Fed Ex Track # 5081400632	

Chain of Custody Record

Quanterra

#5 of 5

QUA-4124 0797

Client	Project Manager	Date	Chain of Custody Number
Brown & Root Environmental	Dave Brayack	11/14/97	03001

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
600 Anderson Drive, Bldg. 7	(412) 921 8375 / (412) 921 4040		

City	State	Zip Code	Site Contact	Lab Contact
Pittsburgh	PA		S. Patselas	Veronica Berta

Project Name	Carrier/Waybill Number
NWIRP	

Contract/Purchase Order/Quote No.

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	$ZnAc/NaOH$	HNO_3	Analysis: VOC - 40ml VOA	Cadmium only	Special Instructions/ Conditions of Receipt
TB-111497	11/14/97	0800	X							X				2		Lab Provided TB
ECM-MW01	11/14/97	0940	X										X		1	
ECM-MW02	11/14/97	1100	X										X		1	
FC-MW07-S	11/14/97	1425	X							X				2		
FC-MW08-S	11/14/97	1605	X							X				2		
FD-MW07	11/14/97	1705	X							X				2		

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal

☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required

☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	11/14/97	1730	1. Received By		
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

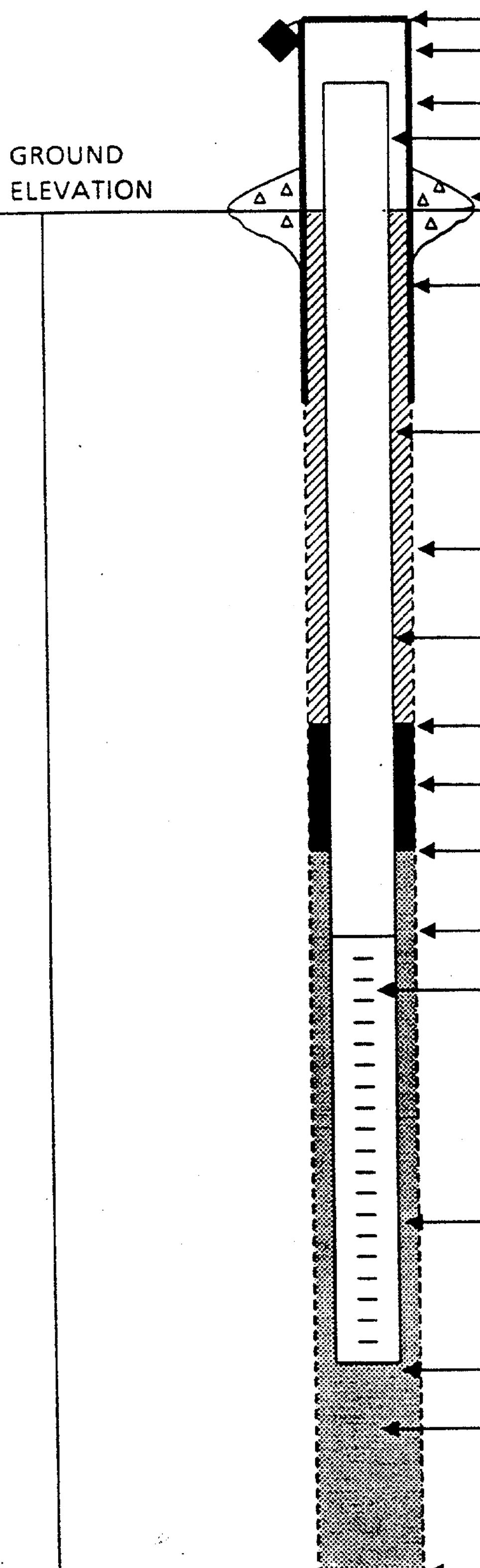
Comments

APPENDIX D
MONITORING WELL CONSTRUCTION SHEETS

BORING NO.: FD-MW07

OVERBURDEN
MONITORING WELL SHEET

PROJECT: NWIRP- Calverton	LOCATION: Calverton, NY	DRILLER: M. Mueller
PROJECT NO.: 7398	BORING: FD-MW07	DRILLING METHOD: HSA
ELEVATION:	DATE: 6/9/97	DEVELOPMENT METHOD: Pump + Surge
FIELD GEOLOGIST: TERESA SAWYER		



ELEVATION OF TOP OF SURFACE CASING:

ELEVATION OF TOP OF RISER PIPE:

STICK - UP TOP OF SURFACE CASING:

STICK - UP RISER PIPE:

TYPE OF SURFACE SEAL: concrete

I.D. OF SURFACE CASING: 6"

TYPE OF SURFACE CASING: Steel

RISER PIPE I.D. 4"

TYPE OF RISER PIPE: Schedule 40 PVC

BOREHOLE DIAMETER: 10.25"

TYPE OF BACKFILL: grout

ELEVATION / DEPTH TOP OF SEAL: 16

TYPE OF SEAL: Bentonite Pellet

DEPTH TOP OF SAND PACK: 8

ELEVATION / DEPTH TOP OF SCREEN: 110

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.020 10'

I.D. OF SCREEN: 4"

TYPE OF SAND PACK: #1 FILTER SAND

ELEVATION / DEPTH BOTTOM OF SCREEN: 120

ELEVATION / DEPTH BOTTOM OF SAND PACK: 121

TYPE OF BACKFILL BELOW OBSERVATION WELL: #1 FILTER SAND

ELEVATION / DEPTH OF HOLE: 121

BORING LOG

PROJECT NAME: NWIRP - Calverton
PROJECT NUMBER: 7398
DRILLING COMPANY: MILLER ENV. GROUP
WATER LEVEL DATA:

BORING NUMBER: FD-MW07
DATE: 6/9/97
GEOLOGIST: TERESA SAWYER

Sample No. and Type or RQD	Depth (Ft.) or Run No.	Blows/ 6" or RQD (%)	Sample Recovery/ Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS	Remarks	FID or PID Reading (ppm)
NA					loose	yellow	Leaves on surface			0
							MED GRAINED SILTY			
							SAND			0
					loose	tan	m.g. SILTY SAND			0
5										
										0
										0
10										
									▼ ≈12'	
										0
15										0
										0
										0
20										

*When rock coring enter rock brokeness.

CONVERTED TO WELL: X Yes ___ No; WELL I.D.#: FD-MW07
REMARKS: CME 5.5 HSA RIG

Signature(s): Teresa Sawyer

APPENDIX E

IEUBK MODELING

IEUBK MODEL - Exposure to Lead (Page 1 of 2)
SITE NAME: Site 7 - Fuel Depot Area
EXPOSURE SCENARIO: On-Site Child Resident - Average Concentration Of Lead In Groundwater
LOCATION: NWIRP, Calverton, New York
DATE: October 14, 1999

LEAD MODEL Version 0.99d

AIR CONCENTRATION: 0.100 ug Pb/m3 DEFAULT
Indoor AIR Pb Conc: 30.0 percent of outdoor.
Other AIR Parameters:

Age	Time Outdoors (hr)	Vent. Rate (m3/day)	Lung Abs. (%)
0-1	1.0	2.0	32.0
1-2	2.0	3.0	32.0
2-3	3.0	5.0	32.0
3-4	4.0	5.0	32.0
4-5	4.0	5.0	32.0
5-6	4.0	7.0	32.0
6-7	4.0	7.0	32.0

DIET: DEFAULT

DRINKING WATER Conc: 7.50 ug Pb/L
WATER Consumption: DEFAULT

SOIL & DUST:
Soil: constant conc.
Dust: constant conc.

Age	Soil (ug Pb/g)	House Dust (ug Pb/g)
0-1	0.0	0.0
1-2	0.0	0.0
2-3	0.0	0.0
3-4	0.0	0.0
4-5	0.0	0.0
5-6	0.0	0.0
6-7	0.0	0.0

Additional Dust Sources: None DEFAULT

PAINT Intake: 0.00 ug Pb/day DEFAULT

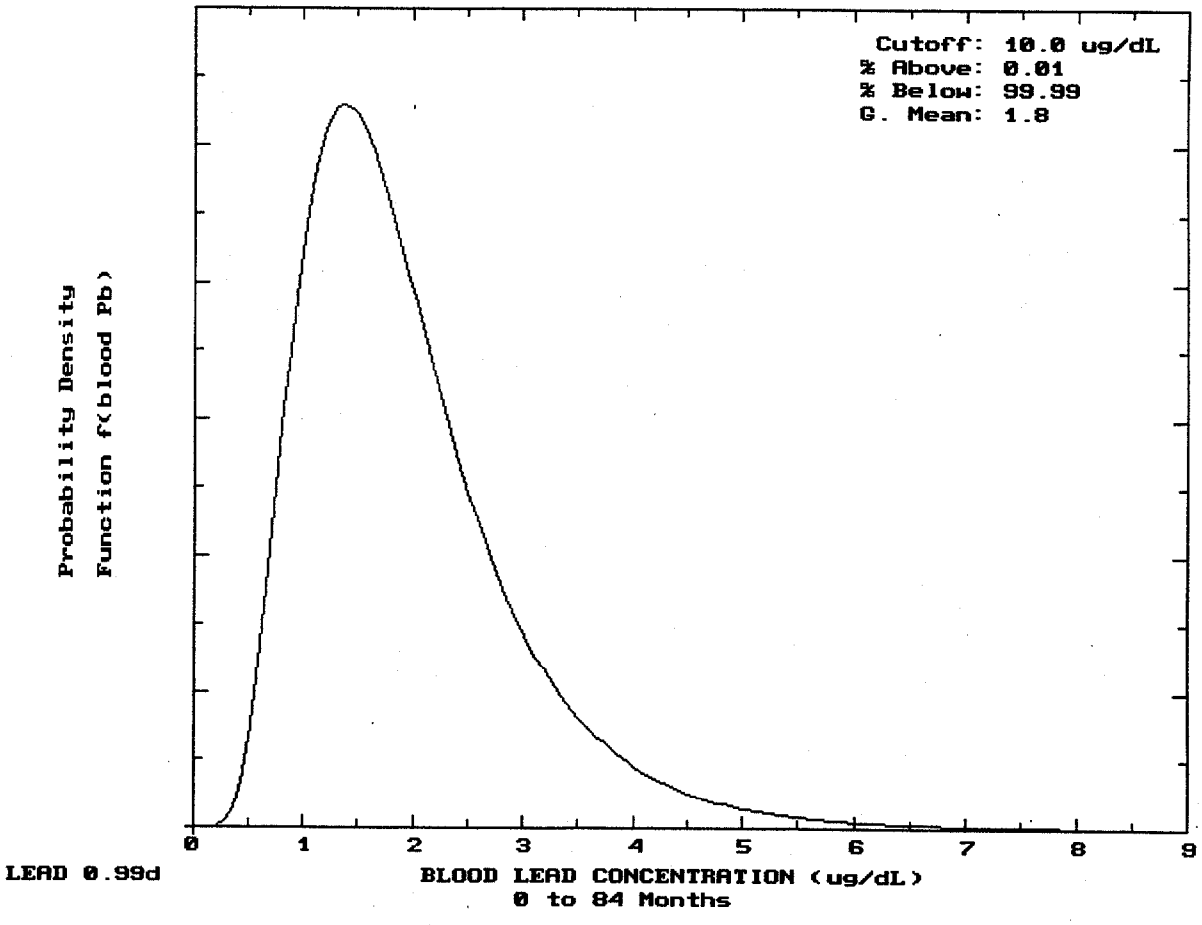
MATERNAL CONTRIBUTION: Infant Model
Maternal Blood Conc: 2.50 ug Pb/dL

CALCULATED BLOOD Pb and Pb UPTAKES:

YEAR	Blood Level (ug/dL)	Total Uptake (ug/day)	Soil+Dust Uptake (ug/day)
0.5-1:	1.9	3.40	0.00
1-2:	1.9	4.61	0.00
2-3:	1.9	5.07	0.00
3-4:	1.8	5.02	0.00
4-5:	1.7	5.00	0.00
5-6:	1.6	5.31	0.00
6-7:	1.6	5.67	0.00

YEAR	Diet Uptake (ug/day)	Water Uptake (ug/day)	Paint Uptake (ug/day)	Air Uptake (ug/day)
0.5-1:	2.66	0.72	0.00	0.02
1-2:	2.78	1.80	0.00	0.03
2-3:	3.13	1.88	0.00	0.06
3-4:	3.02	1.93	0.00	0.07
4-5:	2.93	2.01	0.00	0.07
5-6:	3.09	2.12	0.00	0.09
6-7:	3.41	2.16	0.00	0.09

IEUBK MODEL - Exposure to Lead (Page 2 of 2)
SITE NAME: Site 7 - Fuel Depot Area
EXPOSURE SCENARIO: On-Site Child Resident - Average Concentration Of Lead In Groundwater
LOCATION: NWIRP, Calverton, New York
DATE: October 14, 1999



IEUBK MODEL - Exposure to Lead (Page 1 of 2)
SITE NAME: Site 7 - Fuel Depot Area
EXPOSURE SCENARIO: On-Site Child Resident - Maximum Concentration Of Lead In Groundwater
LOCATION: NWIRP, Calverton, New York
DATE: October 14, 1999

LEAD MODEL Version 0.99d

AIR CONCENTRATION: 0.100 ug Pb/m3 DEFAULT
Indoor AIR Pb Conc: 30.0 percent of outdoor.
Other AIR Parameters:

Age	Time Outdoors (hr)	Vent. Rate (m3/day)	Lung Abs. (%)
0-1	1.0	2.0	32.0
1-2	2.0	3.0	32.0
2-3	3.0	5.0	32.0
3-4	4.0	5.0	32.0
4-5	4.0	5.0	32.0
5-6	4.0	7.0	32.0
6-7	4.0	7.0	32.0

DIET: DEFAULT

DRINKING WATER Conc: 25.00 ug Pb/L
WATER Consumption: DEFAULT

SOIL & DUST:
Soil: constant conc.
Dust: constant conc.

Age	Soil (ug Pb/g)	House Dust (ug Pb/g)
0-1	0.0	0.0
1-2	0.0	0.0
2-3	0.0	0.0
3-4	0.0	0.0
4-5	0.0	0.0
5-6	0.0	0.0
6-7	0.0	0.0

Additional Dust Sources: None DEFAULT

PAINT Intake: 0.00 ug Pb/day DEFAULT

MATERNAL CONTRIBUTION: Infant Model
Maternal Blood Conc: 2.50 ug Pb/dL

CALCULATED BLOOD Pb and Pb UPTAKES:

YEAR	Blood Level (ug/dL)	Total Uptake (ug/day)	Soil+Dust Uptake (ug/day)
0.5-1:	2.7	5.00	0.00
1-2:	3.5	8.52	0.00
2-3:	3.4	9.17	0.00
3-4:	3.2	9.26	0.00
4-5:	3.1	9.45	0.00
5-6:	3.0	10.02	0.00
6-7:	2.9	10.48	0.00

YEAR	Diet Uptake (ug/day)	Water Uptake (ug/day)	Paint Uptake (ug/day)	Air Uptake (ug/day)
0.5-1:	2.61	2.36	0.00	0.02
1-2:	2.68	5.80	0.00	0.03
2-3:	3.03	6.07	0.00	0.06
3-4:	2.94	6.25	0.00	0.07
4-5:	2.85	6.53	0.00	0.07
5-6:	3.02	6.91	0.00	0.09
6-7:	3.34	7.04	0.00	0.09

IEUBK MODEL - Exposure to Lead (Page 2 of 2)
SITE NAME: Site 7 - Fuel Depot Area
EXPOSURE SCENARIO: On-Site Child Resident - Maximum Concentration Of Lead In Groundwater
LOCATION: NWIRP, Calverton, New York
DATE: October 14, 1999